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ARMY

A PROFESSIONAL PUBLICATION DEVOTED TO THE ADVANCEMENT OF THE MILITARY ARTS AND SCIENCES AND REPRESENTING THE INTERESTS OF THE ENTIRE U. S. ARMY

MILITARY ADVICE FOR A STRONG PRESIDENT. Out of gales of controversy . . . decisions can be made. *Col. Lawrence J. Legere, Jr.* 22

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By Tom Hickson

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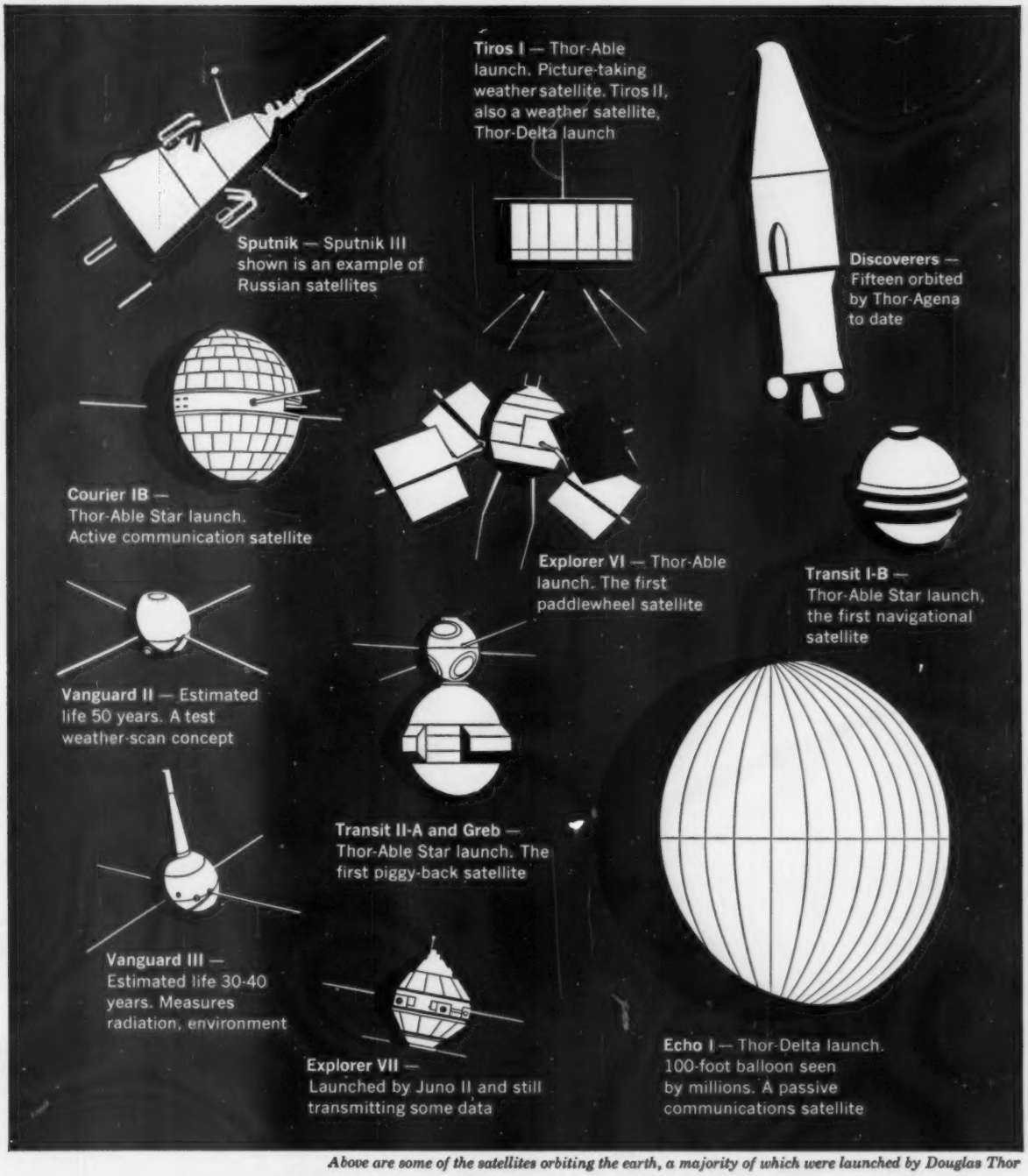
Tiros I — Thor-Able launch. Picture-taking weather satellite. Tiros II, also a weather satellite, Thor-Delta launch
Sputnik — Sputnik III shown is an example of Russian satellites
Discoverers — Fifteen orbited by Thor-Agena to date
Courier IB — Thor-Able Star launch. Active communication satellite
Explorer VI — Thor-Able launch. The first paddlewheel satellite
Transit I-B — Thor-Able Star launch, the first navigational satellite
Vanguard II — Estimated life 50 years. A test weather-scan concept
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Vanguard III — Estimated life 30-40 years. Measures radiation, environment
Explorer VII — Launched by Juno II and still transmitting some data
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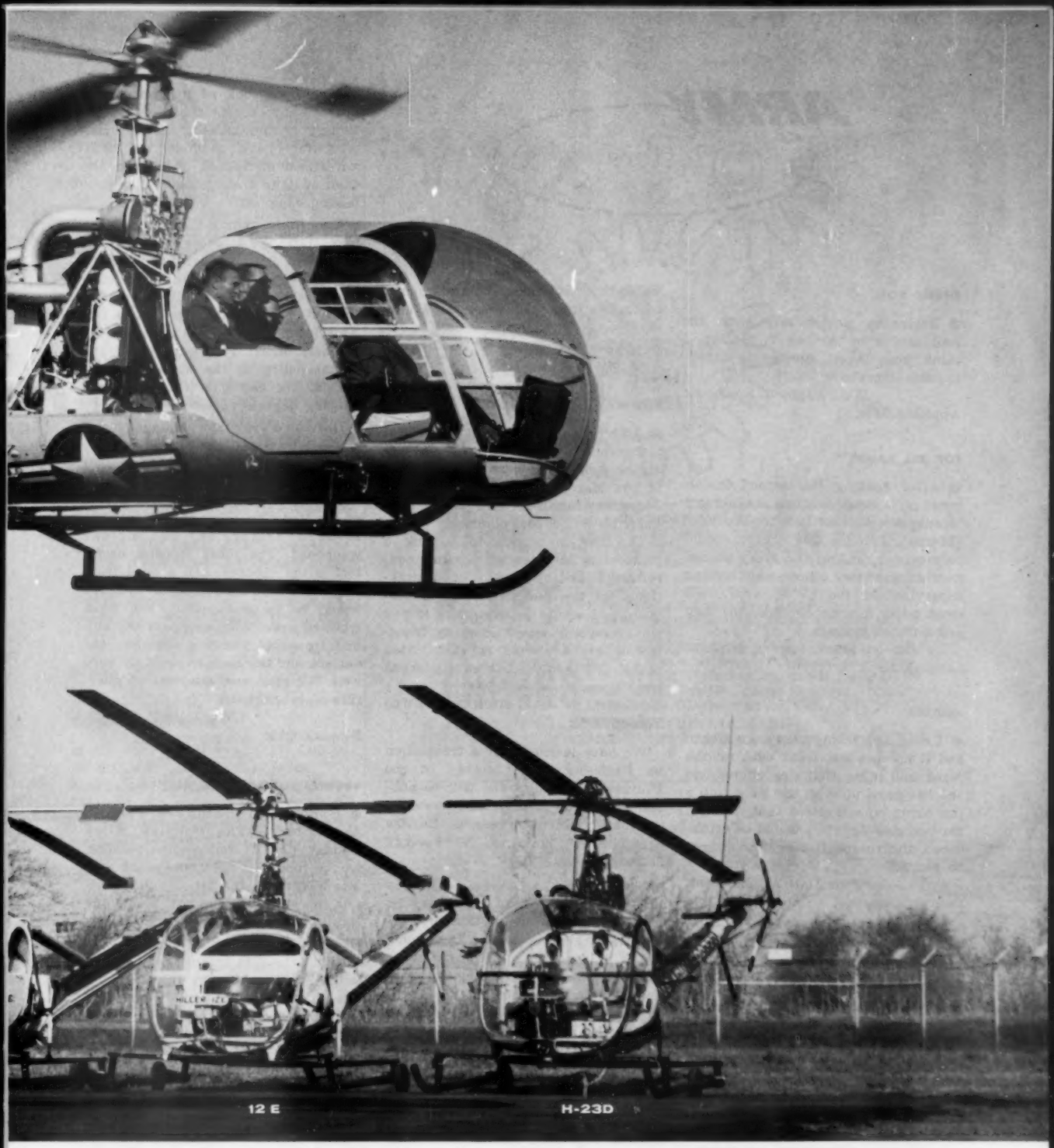

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ARMY letters

THANK YOU

● Beginning particularly with the lead article by Arthur T. Hadley, I think your April number is exceptionally impressive.

MAJ. WALDO E. ROSEBUSH
Appleton, Wis.

FOR ALL HANDS

● After reading the second instalment of Colonel Austin's magnificent "Management's Self-Inflicted Wounds" [March], I think this article should be required reading for every officer, noncommissioned officer and civilian supervisor in the U. S. Army. All must know how to diagnose his own self-inflicted wounds.

MSGT. JOHN T. SIMPSON
Lansing, Mich.

AMAZED

● I read ARMY Magazine each month and it amazes me, what with all the plans and ideas that are offered, no one has come up with one for making the Army so attractive that a large, hard core of Regulars would be established and the draft would no longer be needed.

PVT. DAN M. JACOBSON
Denver, Colo.

KEEP ARTILLERY'S EYES

● Field artillerymen welcome observations such as those by Major General H. W. Blakeley in "We Must See With Our Own Eyes" [March]. Old soldiers (with respect) like General Blakeley would be riled indeed to know that some present-day ill-advised do-gooders are proposing that all of the artillery's "eyes" be centralized on a "warehouse" basis.

It is very difficult to understand how the most important lessons of recent conflicts are lost, such as the shotgun marriage of target acquisition with artillery firepower. Hard-learned lessons be damned. There are still people who will make target acquisition a sporting-house affair, available to users as needed. Certainly under this concept both the manager and his product would be suspect.

While our Army goes down the road to modernization, it is invaluable to have the stabilizing influence of former leaders like General Blakeley.

LT. COL. DAVID E. WRIGHT, JR.
Fort Sill, Okla.

THE WAY OF GUERRILLAS

● I thoroughly agree with your editorial comment introducing the first instalment of "La Guerra de Guerrillas" in the March issue, on the need of becoming familiar with Communist guerrilla tactics and planning.

The best approach to solving a problem is to learn all we can concerning it, not by ignoring it as sometimes we are inclined to do. Consequently, I would appreciate it if you would inform me if English translations are available in the United States. Neither the March nor April issue named the publisher.

RICHARD G. SIPES
Tucson, Ariz.

We have learned that a translation by Professor J. P. Morray of the University of California, will be published at $4.00 in May. The publisher is Monthly Review Press, 66 Barrow Street, New York 14, N. Y.—THE EDITORS.

● Regarding "La Guerra de Guerrillas," I have been avidly reading this highly touted accumulation of garbage-type generalities seeking some pearls of wisdom, something new or something worth evaluating. I fail to find it. Is there anything in this bearded dissertation that is not already universally known and better said in our field manuals or the Boy Scout's handbook?

It appears that guerrilla warfare is, as I have long suspected, the application of sound military principles by a force organized and supported by expediency. Why further confound ourselves by surrounding this too, with an air of complexity?

LT. COL. RICHARD W. ULRICH
Fort Benning, Ga.

● The series on guerrilla warfare by Guevara would probably go well if published in book format. The strategy of guerrillas is toward the same ends as any other military force, but their methods differ. So do their means of attaining those ends.

When you look at it from recent examples, it seems that the practitioners of the ancient art of bushwhacking have outdone the well-advertised disciplines of Moltke and Clausewitz in areas taken and in their lasting conquest.

One thing remains as plain as a pike staff. We'd better know all we can about guerrilla fighting in all its phases. We haven't done much fighting of that kind formally, but after the fall of the Philippines quite a few Americans and Filipinos went into the business, aided by the senseless and brutal policy of the Japanese militarists. We can note that they had varying degrees of success.

In Laos a regiment of Magsaysay's or Marking's guerrillas would do more than most of the aid we have sent there. It has been chiefly bushwhacking, some of it not too spirited except on the Red side. What good would our modern armor be, or nuclear weapons? The most modern useful tool is the chopper, and a good train of pack mules and jackass artillery would be more valuable than most wheeled gear. With choppers and animal transport working together, the ancient and the modern could do very well. We also need students of guerrilla-style transport.

CWO JOHN P. CONLON
Newark, Ohio

AROUND THE BOWLING ALLEY

● I thoroughly enjoyed Colonel Appleman's "The Bowling Alley Fights" [April] for several reasons. At the time this fight was going on I was busy wtih the 1st Cavalry Division in engineer support along the Naktong, so it is interesting to finally find out what went on behind us.

Didn't the 27th Infantry come back to the Bowling Alley by 3 September? I recall going up the poplar-lined road looking for Colonel Michaelis' headquarters (it was in a sand-bagged culvert) in order to coordinate blowing a bridge and laying mines if they had to pull back.

The next day our engineer company was committed as infantry to clean out "a few guerrillas" who had occupied the highest peak in the area, the walled city of Kasan. When we came under machine-gun fire at the base of the mountain, then mortar fire about 100 yards farther on, then more MG fire, I thought they were pretty well-organized guerrillas.

Colonel Appleman's research has confirmed what I later deduced, that there were more than guerrillas on top of the mountain. I might add that the North Korean POW reports of

having lost all their 120 mortars was in error, since I saw four of them on top of a ridge after we reached the top of the walled city, and they were still firing. A picture of the empty shell cases around the artillery batteries emplaced along the Bowling Alley road would add even more emphasis to the tremendous fire support given the 27th Infantry.

MAJ. THOMAS T. JONES
West Point, N. Y.

LIKES CEREBRATIONS

● I always enjoy the Cerebrations section, and three in the March issue offer fine solutions to varied problems.

I have always liked the saber for military ceremonies, and back Colonel Gamma Ray's sensible recommendations. I have taken part in a training program of the type Captain Murphy advocates, and sincerely believe it will assist ROTC cadets as well as it has those of USMA. Finally, Colonel Walker's suggestion for a highly developed mobile vehicle answers an urgent need in today's Army.

CAPT. JAMES E. HAYS
Vienna, Va.

BATTLEFIELD LOGISTICS

● My congratulations to Lt. Col. R. N. Rollason for his fine article, "A New Look at Battlefield Logistics" [March].

Being currently in the eleventh week of the Associate Command and General Staff College course and utterly dismayed by the concepts of ADSOC, CTOC, FATOC, DLCC, DLOC, an infinitum, it was more refreshing to read an article by an officer who has his eye on the problem and his feet on the ground.

LT. COL. OREN W. BRYANT
Fort Leavenworth, Kans.

Colonel Rollason extended his comments in "Scheduled Supply," in the May issue.—THE EDITORS.

OVERTEACHING THE MOS

● General Pochyla's "Training Challenge" [March] will get "amen and bravo!" from many who have been on both sides of the instructor's lectern. Especially for his comments on overteaching the MOS qualification and thereby losing a good soldier-technician to make a poor "junior engineer."

A realistic grounding in the fundamentals of a technical subject *is* important, but one hour more than necessary is not only absurd, but expensive. The confusion and resentment of the student can hardly be

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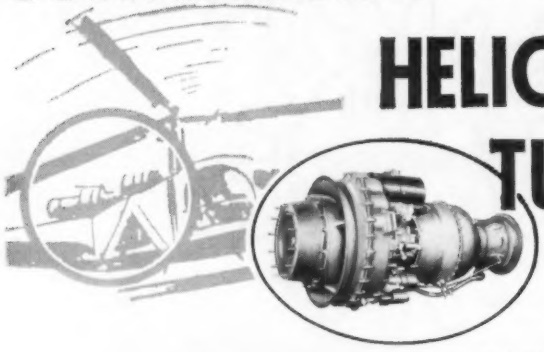

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LETTERS

greater than what occurred a few years ago during an 18-hour block in atomic warfare at a prominent service school. Revelling in his only specialty, the instructor droned into his fourth deadly hour on the intricacies of fusion and fission. Suddenly a student in the center of the hall bolted to his feet and bellowed: "Dammit, sir, we're interested in how to *fight* with and against atomic weapons—not how to *build* the damned things!"

REINHOLD W. HERMAN
Newport News, Va.

SHOW THE ARMY!

● Some years ago, while on duty in the Pentagon, I wrote a staff study which recommended that the 3d Infantry, in conjunction with the Army Band, once a week stage a formal guard mount in front of the White House, and that for a 24-hour period it relieve or supplement the civilian guards. Needless to say, while everyone thought the idea good, no one would go out on a limb and recommend such a militaristic step.

I submit that the original idea is still a good one that should be adopted as a means of showing the colors and the Army. Many countries—democracies patterned in our image as well as monarchies—daily mount guard in front of the Presidential mansion or King's place with no visible or covert threat to cherished democratic institutions. Guarding of the nation's chief executive by troops is symbolic of the soldier's loyalty to the head of state.

I can conceive of no better way to demonstrate what we have in the way of disciplined troops and martial spirit, than to hold a weekly formal guard mount at the White House.

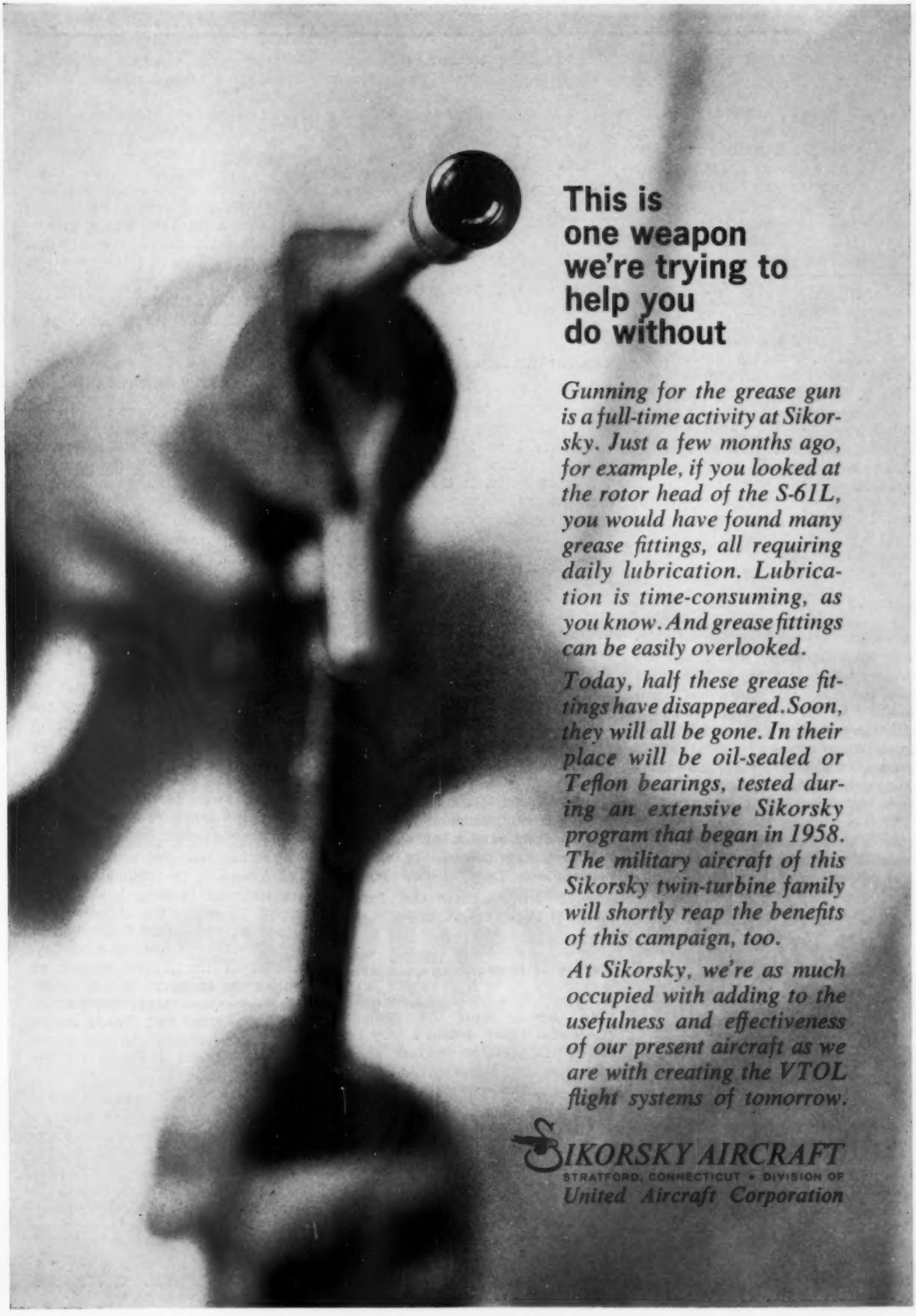
COL. H. ASHTON CROSBY
Fort Campbell, Ky.

THOSE UNNECESSARY CHANGES

● The Cerebration "Is That Change Necessary?," by Captain Short Changed [April], should have been printed on the cover. The only thing I find wrong with it is that he omitted the all too well known expression, "running around in circles." Perhaps he will write one later on that subject.

During 14 months of duty under Civil Service as mechanical draftsman —and let me add that I did about everything *but* drafting during that time—my drawing room was moved at least eight times and into five different buildings.

Since then I have been in Govern-



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ment contract work (maintaining planes for Army aviation), and I can say that conditions haven't change too much. Give me the civilian way. After 17 years in civilian occupations I wonder how we ever won a war now that I have been exposed to the right way, the wrong way and finally, the Army way. I have also concluded that all the gripes are warranted.

THOMAS W. SOLOMON
Headland, Ala.

PERSHING BIOGRAPHY

● I am writing a biography of General John J. Pershing (1860-1948), commander of the AEF during World War I. I would appreciate hearing from anyone who has letters, anecdotes, reminiscences, or other information about him. My address is: Georgetown University, Washington 7, D. C.

DONALD SMYTHE, S.J.

CONFEDERATE INSIGNIA

● On page 6 of the April issue, in commenting on the letter by Mr. Sterling E. Lanier, you correctly differentiate between Confederate General Edmund Kirby Smith and his brother who was killed at Molino del Rey, but make this ambiguous statement: "As for four-star rank, the Confederacy never got around to differentiating between general officer grades. All general officers wore three stars within a wreath—not on shoulders, but on lapels and collars."

That is true, but the inference from your statement—that there was no distinction among Confederate general officer grades—is not. In referring to General Smith as a four-star general, Mr. Lanier undoubtedly meant that he was a "full" general as distinct from the three other grades, although all wore the same insignia.

COL. WILLIAM P. JONES, JR.
Fort Sam Houston, Tex.

Like everyone else, ARMY'S editors are aware that there were four grades of general officer in the Confederate Army, and that Kirby Smith was a "full" general. Our comment concerned insignia of rank.—THE EDITORS.

CAN THE EXPLOITERS

● The views expressed by Captain Meyers in "The Evils of Degree Hysteria" [January], are not without foundation. I am certain we all have encountered those who have exploited the opportunities to the utmost. Unfortunately this trait is not confined to one particular endeavor. It appears to be general in many fields.

The condition discussed by Captain Meyers gives rise to a more fundamental and sinister problem: self-centered exploitation, which flourishes unabated. Whiskey diplomacy appears to have replaced diligent and conscientious effort. Status and privilege are more important than duty. This trend can be attributed partly to the system in general, but mainly it is caused by a general degradation of ethical standards.

Rather than limit or reduce the opportunities for self-improvement, I prefer the elimination of those whose only apparent mission is to exploit the system, and revitalization of the time-honored code, Duty, Honor, Country.

LT. COL. EMANUEL P. PETERS
APO 254, New York, N. Y.

MAJORS AS COMPANY COMMANDERS

● Colonel Mataxis, in his Cerebration "The Captain Must Get Through" [December 1960], defines a very real and critical problem: the lack of rapport between company and battle group commanders.

We junior officers cringe, however, at the slightest suggestion that the company commander be a major. This is empire building, job inflation, and depreciation of that rank to the worst extent. A more reasonable solution, considering the reduced size of the battle group (compared to the regiment) is to make the BG commander a lieutenant colonel.

With the current possibility of the Army's expansion, an opportunity to correct past wrongs presents itself. Reverse the trend! Majors no longer are officers of three or five years' service. The experience of today's captains matches that of lieutenant colonels of 1945-50. Let the Infantry continue to lead the rest of the Army, by fearlessly admitting deficiencies in current organization and acting to correct them rather than concealing them with another error.

CAPT. DAVID K. LYON
CAPT. F. G. STEPHENSON
APO 301, San Francisco, Calif.

WHAT'S WRONG WITH BASIC TRAINING?

● My experience bears out what Lieutenant Gereau has to say in "The One-One-Two Craze" [February]. A few weeks ago, my battle group underwent an almost complete change-over in grade E-4 and below. The replacements we received, almost totally green recruits, had just come from about every post that turns out basics. For the most part these men are normal young Americans with a basic civilian education, normal intelligence, and a home environment found anywhere in the U. S.

Half of them couldn't stand at attention, much less march or do the manual of arms. At physical training they were not at all familiar with the exercises. We had expected soldiers trained in the use of their weapons. Instead, we were faced with having to teach basic subjects and at the same time create an effective fighting unit.

What has happened to basic training? Where is the training platoon sergeant who bounced quarters off bunks? Do basics live in barracks? If they do, who cleans them, a maid service? Aren't new soldiers instructed in the proper method of wearing the uniform? Is dismounted drill so unimportant it is only touched upon? How about PT? Finally, do the basic and advanced individual training courses train a soldier for the MOS he is given?

It seems to me our basic training is falling flat on its face. Its products have no discipline nor any of the soldier's skills. It is evident—at least to those who receive the products of our training centers—that it's time for a good long look at basic training. Changes must be made, even if we have to revert to the "Old Army system."

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GOODYEAR

RADAR STRUCTURES: Another prime capability of Goodyear Aircraft

To "see" and stop missiles in space is Nike-Zeus mission. Since ICBM time-to-target is about 30 minutes, system has only few minutes to detect enemy missile, compute course, launch and guide Nike-Zeus missile to intercept point.

A NEW "EYE" FOR SIGHTING HOSTILE ICBM's

Only active defense against hostile ICBM's under development today is Army's Nike-Zeus anti-missile system. Nike-Zeus combines one of the most sensitive multiple-target radars yet perfected with the Free World's fastest interceptor missile. Object: detection and destruction of ICBM's flashing through space at close to 20,000 m.p.h.

As a leading producer of radar structures of all types, Goodyear Aircraft was selected to work with Bell Telephone Laboratories to develop, design and build the large acquisition radar transmitting and receiving antennas shown here. Working with Western Electric, the prime contractor, and a team of major Nike-Zeus subcontractors, Goodyear has already furnished operating prototypes of the antennas. And, currently, work is well under way on manufacturing techniques for volume production. For details on Goodyear's extensive experience in advanced radar structures write Goodyear Aircraft Corporation, Dept. 914WF, Akron 15, Ohio.

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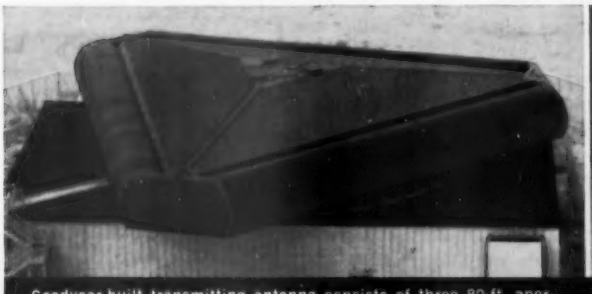
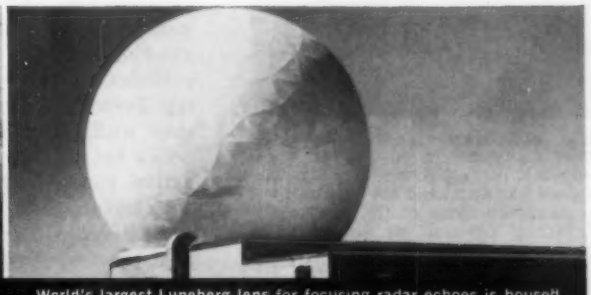


Goodyear-built transmitting antenna consists of three 80-ft. apertures in triangular lineup rotating continuously in azimuth while accurately slaved to the receiving antenna.



World's largest Luneberg lens for focusing radar echoes is housed in this 110-ft. radome. Radome contains 445 triangular plastic panels attached to a space-frame.

ARMY front and center

Training with the West German Army on a nine-day exchange program, British Cpl. Harold Trevelyan, right, of the Green Howards, stands a Bundeswehr formation at Hemer. Ten British infantrymen lived and trained with German soldiers under the program.

Maj. Gen. JEAN ALLARD will be the first Canadian in history to command a British Army division. The Queen has approved his appointment to take command of the British 4th Infantry Division in Germany in November. A native of Quebec, General Allard commanded the 25th Infantry Brigade of the Commonwealth Division in Korea. He is now Vice Chief of Staff of the Canadian Army.

MISSILEMEN TO FIRE IN BRITAIN

As a result of arrangements between the U.S. Department of Defense and England's Ministry of Defence, American missilemen will begin using a range in the Hebrides, islands off the west coast of Scotland, for practice firing this month.

Much expense will be eliminated under this plan since previously all U.S. Army missile units in Europe were required to travel back to CONUS to conduct practice firings.

First to use the range this summer, will be a Corporal missile battalion from U.S. Army Europe. In lending its range facilities to the American unit, the British Army will extend its cooperation to provide certain equipment and support personnel.

RESERVES CONDUCT LOGEX 61

Sunken ships, bombed harbors, CBR strikes, broken pipelines and disrupted main and alternate supply routes plagued the players in LOGEX 61, a logistical paper exercise conducted last month at Fort Lee, Va.

This year the annual exercise was held with the 311th Logistical Command, an Army Reserve unit from Los Angeles, in the role of Theater Army Logistical Command. The 311th was the first major Reserve unit to travel from the West Coast for summer field training.

The "problem" was held in the traditional area reaching from the French coast deep into Germany and assumed that an aggressor had made the initial attack from the east. LOGEX 61 involved not only Army operations but also called for cooperation by the Navy, the Air Force and the State Department.

The scenario called for constant harassment creating almost every conceivable logistics obstacle against efficient rear, advanced and front-line operations. Not one Army activity, from civil affairs administration to petroleum products supply, was overlooked in the realistic 'round-the-clock maneuver.

Commander of the 311th, largest Army Reserve headquarters unit, is Major General F. C. Mencaccy.

SEVENTH ARMY DECENTRALIZES TRAINING

The swing to decentralized training in Seventh Army, the U. S. combat-ready force in Europe, has seen the last Seventh Army tank gunnery practice at the huge Bergen-Hohne NATO tank range.

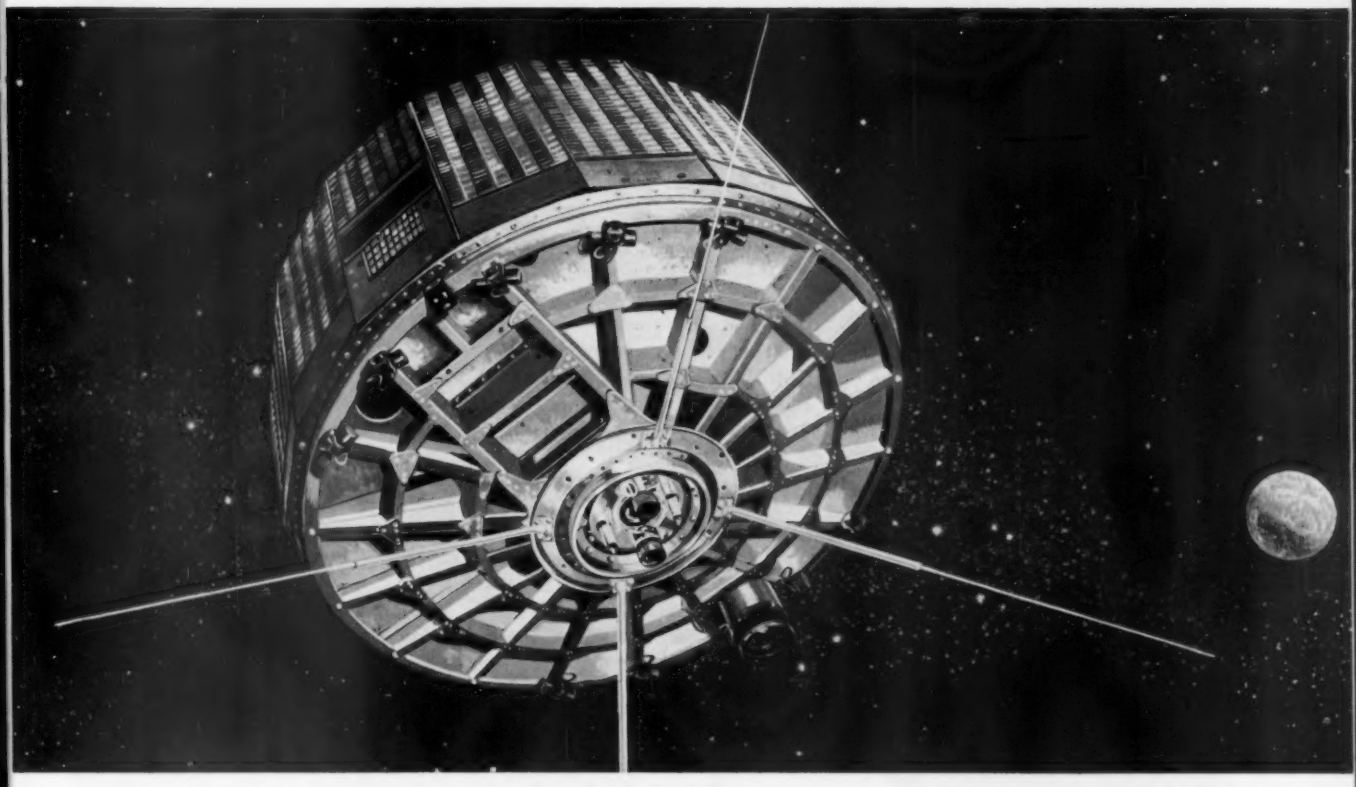
Under the new system of training Seventh Army gunners will stay with their own tanks and crews for combat-posture qualification runs at the Grafenwohr training grounds.

A Seventh Army spokesman said the training would "emphasize the judging of each crew member's performance as part of the team, and will test his reaction with the rest of the crew. The techniques in the new decentralization program will bring to bear not only added firepower but mobility and shock action."

The program, instituted by the army commander, Lt. Gen. Garrison H. Davidson, is designed to train crews as combat-effective units and not as individuals. The program will also help to stem the dollar drain by saving the U. S. about $1 million annually in range fees.

This concept of training, coming hard on the heels of General Davidson's highly publicized spit-

"WEATHER EYE" IN SPACE



RCA-NASA Development of TIROS Advances Progress in Worldwide Weather Forecasting

From its vantage point in space, TIROS is sending down to earth new, more definite pictures and data of the world's everchanging weather patterns to aid man in his ageless efforts to control the elements.

Incorporating revolutionary and advanced electronic equipment, TIROS was designed, developed and built by RCA's Astro-Electronics Division for National Aeronautics and Space Administration. Within its small circumference are miniature TV cameras, tape recorders, TV transmitters, command receivers, timing mechanisms, beacons and telemetry equipment. In addition, it carries new scanning and non-scanning Infra-red Sensing Devices, developed by NASA, to measure and record the heat radiation of the earth and its cloud cover, and a revolutionary new Magnetic Orientation Device to capitalize on the effects of the earth's magnetic field and maintain favorable orientation of the satellite for long periods.

RCA developments in miniaturization, reliability, computing and overall electronic activities are contributing to many of the nation's leading space and missile projects. For information describing new RCA scientific developments, write Dept. 434, Defense Electronic Products, Radio Corporation of America, Camden, N. J.

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and-polish ban, is hardly new but goes back to former times when a unit commander bore much more of the responsibility for molding his men into an effective combat unit.

According to the plan, the company commander will "run more of the show than he does now. The feverish competition for numerical scores will be out, and the tank crews can concentrate on the 'combat ready' mark. This gives the unit commander more leeway and freedom in polishing and balancing his unit's combat readiness in the places he thinks it is most needed."

Ralph Alex, Awards Chairman of the American Helicopter Society, makes dual Kossler Award to Captains Donald T. M. Wall, center, and John Temperilli in behalf of the 56th and 57th Medical Detachments (Helicopter Ambulance) for the units' work during the Chilean disaster last year.

ARMY 'COPTER UNITS HONORED

Two U.S. Army rescue units which participated in relief operations during the Chilean disaster last year *(see page 38)*, the 56th and 57th Medical Detachments (Helicopter Ambulance), have been honored with the Captain William J. Kossler Award by the American Helicopter Society.

Captains Donald T. M. Wall and John Temperilli, representing the 56th and 57th, respectively, accepted the awards at the annual meeting of the Helicopter Society in Washington. The 56th is stationed at Fort Bragg, N.C., and the 57th at Fort George G. Meade, Maryland.

NEW SCHOOL IN CANAL ZONE

World-wide interest in unconventional warfare has resulted in a new school for Latin-American soldiers in the Panama Canal Zone. None of the training will be designed specifically for any one country but will be offered to forces desiring training in these skills.

To be set up this summer, the school will, initially, limit classes to officers but may later offer training to enlisted men. For junior officers the courses are expected to last from nine to 12 weeks and from two to three weeks for seniors. A maximum of 40 students will attend each class and a total of three long and three short courses will be given in fiscal year 1962.

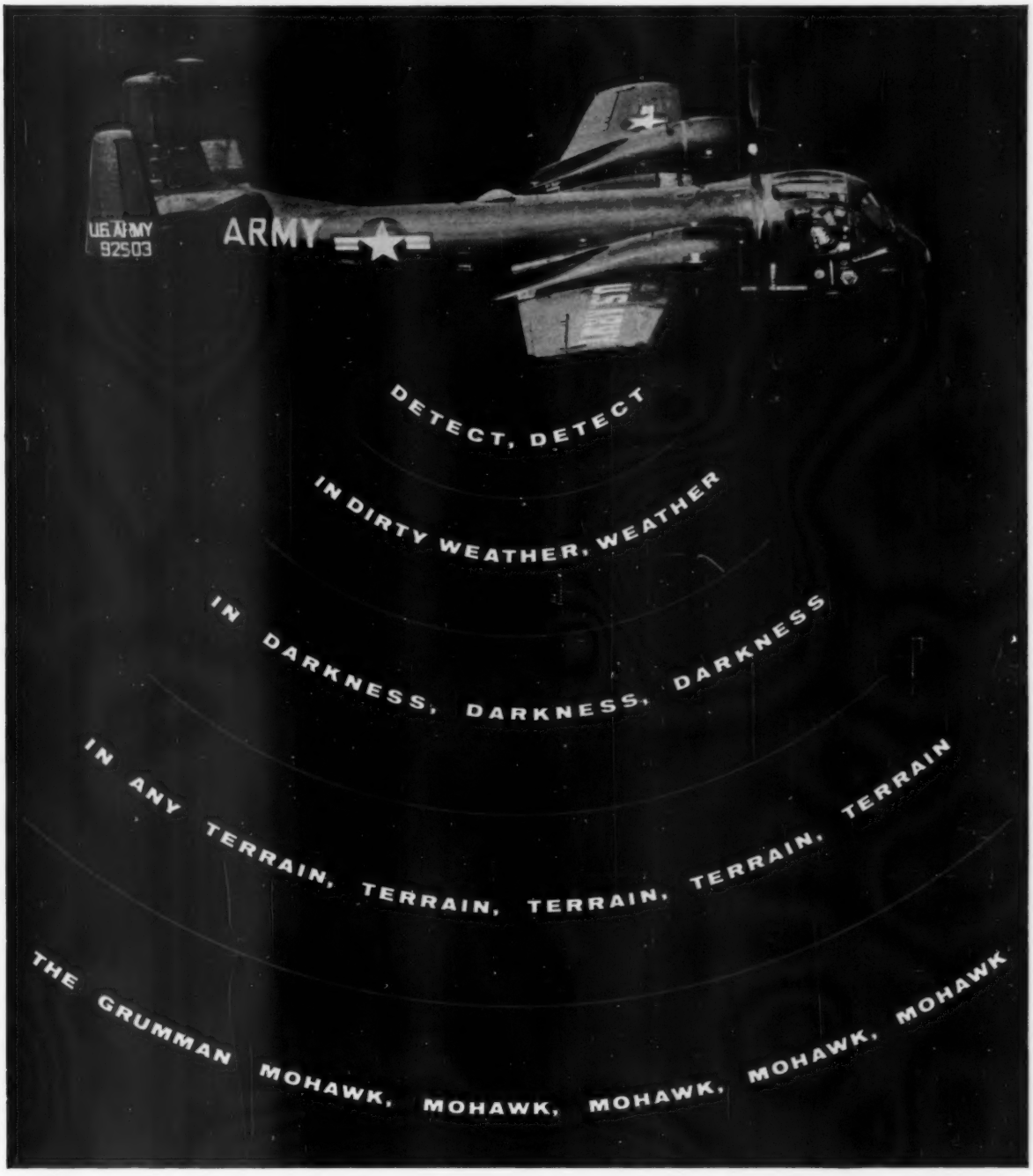
Of the 40 instructors, not all will be Special Forces soldiers, but all will be specialists in the fields of guerrilla and antiguerrilla warfare, intelligence and counterintelligence, psychological operations, civil affairs and related fields. Classes will be conducted in Spanish at Fort Gulick and at the Army's long-established Jungle Warfare Training Center.

The instructor staff will be composed of U. S. officers and noncommissioned officers with, possibly, occasional guest instructors from foreign countries.

Cargo in the Army's Caribou is secured by Pvt. Andrew J. McGraw, Jr., in tests at Fort Benning. The De Havilland-built Caribou is being put through its paces in 46 realistic exercises to simulate situations which may be encountered in combat.

REVIEWING THE TROOPS

BELVOIR's 100th Engineer Company (Floating Bridge) of the 79th Engineer Group chosen by Society of American Military Engineers as first annual winner of Itschner Award as best Engineer company in the Army. • FIRST time since World War II, a WAC officer has been detailed in JAGC: Lt. Col. Nora G. Springfield, now assigned to Legal Assistance Division, Office of the Judge Advocate General. • CAPTAIN Daniel B. Puckel of Benning's Advanced Marksmanship Unit cracked old record on indoor range when he fired 441 straight 10s at 50 feet while kneeling. The 10-ring is about the diameter of a soda straw. • AGAIN this summer and for the fourth year, Air Force Academy cadets will take jump training at Benning. Class this summer doubles those of previous years with 80 trying for jump wings. • LT. GEN. LEWIS B. HERSHEY, director of the Selective Service System, says that the Universal Military Training and Service Act, as amended, is flexible enough to provide deferment for members of the Peace Corps.



The enemy might try for surprise under cover of darkness, bad weather, or terrain . . . but it's to no avail, thanks to the detection capabilities of the Army Mohawk.

Equipped and available with either standard observation gear (the AO-1A "Eyeball")—or side-looking airborne radar (the AO-1B SLAR)—or infrared (the AO-1C)—the Mohawk will seek out the enemy to give the Army continuous and up-to-the-minute information.

The Mohawk also provides the Army with maximum operational flexibility. It's a twin turboprop aircraft designed to operate with short-field capabilities into and out of unimproved fields. For example, from cow pastures just 600 feet long! An all-weather aircraft, the Army Mohawk is the ultimate in electronic surveillance and observation.

GRUMMAN

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ARMY authors

COL. LAWRENCE J. LEGERE, JR., Infantry *(page 22)*, is a 1940 graduate of USMA who served in the 101st Airborne Division during World War II and commanded a battalion of the 35th Infantry in Korea during 1953-54. During 1947-50 he earned degrees of A.M., M.P.A., and Ph.D. in political science at Harvard. Since then he has served in staff capacities in Berlin, Korea, the Pentagon, the White House, and at SHAPE. A recent graduate of the National War College, he is now assigned to the 82d Airborne Division at Fort Bragg. Colonel Legere's article was written before the new Administration took office.

COL. STEDMAN CHANDLER, USAR, retired *(page 29)*, is an advertising executive in San Francisco. Commissioned in the Infantry Reserve in 1925, he served in combat during World War II with the 7th, 9th and 90th Infantry Divisions. Late during the war he became assistant to the Chief of Intelligence Training in the Pentagon. He is co-author of *Front-Line Intelligence* (1946).

MAJ. MERSHAN G. SHADDY, Armor *(page 35)*, is Chief of the Armaments, Turrets, and Fire Control Branch of the Combat Vehicle Section at the Armor Board, Fort Knox, Kentucky. A graduate of the Command and General Staff College, he has served with the Constabulary and the 14th Armored Cavalry Regiment in Germany, and with the 10th Armored Cavalry in Korea. "Alfa" denotes Troop A in his article, "38" being the number of the recon vehicle assigned to its 3d Platoon.

LT. SAMUEL R. SAKS, Medical Service Corps, USAR *(page 38)*, was on active duty at the U. S. Army Dispensary at Fort Myer, Virginia, when the Chilean earthquakes occurred in May 1960 and was attached to the 7th Field Hospital for the relief mission. A graduate of the University of Maryland, he served on active duty from August 1957 to August 1960.

CHARLES A. DODSON *(page 44)*, is an associate editor of ARMY.

COL. THEODORE C. MATAXIS, Infantry *(page 53)*, was commissioned from the University of Washington ROTC in 1940. He commanded an infantry battalion in ETO during World War II and in Korea was executive and CO of the 17th Infantry. Since then he has been chief of the Publications and Visual Aids Department at The Infantry School, assistant chief evaluator of troop tests in Exercise King Cole (1957), and division chief of staff. Now commanding the 1st Airborne Battle Group, 505th Infantry, in Germany, Colonel Mataxis was recently ordered to the U.S. Army Strategy and Tactics Analysis Group, in the Washington area. Co-author of a text on atomic tactics, this is his fifth article in ARMY.

MAJ. GEN. HAMILTON R. HOWZE *(page 59)*, a 1930 graduate of West Point, served throughout World War II with the 1st Armored Division, in which he led a combat command. Later he was Deputy Chief of Staff for Operations of Seventh Army, Director of Army Aviation in the Pentagon, and commanded the 82d Airborne Division. General Howze is now Chief, U.S. Army Advisory Group, Korea, and recently was appointed Assistant Commandant of the National War College. This is his eleventh article in ARMY.

NICHOLAS J. ANTHONY *(page 70)*, an associate editor of ARMY, served in the 18th Infantry and was a staff sergeant at 1st Infantry Division headquarters.

LT. COL. ALBERT E. SEIFERT, Armor *(page 72)*, USMA 1943, served in ETO with the 14th Armored Division. He has served with MAAG Japan as adviser to the Japanese Combined Arms School, as tactics instructor at The Armor School, and since July 1959 has been chairman of the Armor Committee, The Infantry School.

LT. COL. JAMES J. WHITSETT, Corps of Engineers, USAR *(page 74)*, as a structural engineer used metric dimensions for oil refineries erected in Mexico and Japan. As Secretary of Industrial Fasteners Institute (an association of bolt, nut, and rivet manufacturers), he sees the problems of dual standards.

CAPT. RICHARD P. FOX, Artillery *(page 76)*, was commissioned from OCS in 1952 and in Korea was a forward observer and infantry platoon leader. He has commanded a battery in the 1st Automatic Weapons Battalion, 44th Artillery, in Europe, and is now on duty at Fort Bliss, Texas. He has written four other articles for ARMY.

CAPT. ROBERT LEIDER, Quartermaster Corps *(page 78)*, was commissioned in the Infantry in 1952 and transferred to QMC in 1956. He is now attending the Advanced Course at the QM School at Fort Lee, Virginia.

MAJ. THOMAS T. JONES, Corps of Engineers *(page 80)*, makes his fifth contribution to ARMY. A 1948 graduate of West Point, he has served with the 17th Engineer Battalion (Armored Division) at Fort Hood, Texas. He is currently on the staff and faculty of the Military Academy.

J. S. BUTZ, JR. *(page 84)*, is a free lance technical writer specializing in aviation and space reporting. A former member of the staff of *Aviation Week*, he works out of Washington.

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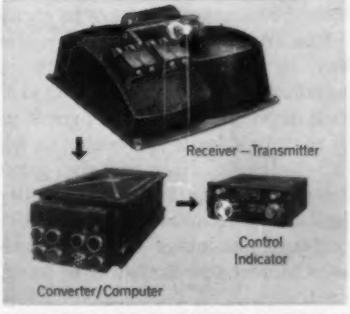
RYANAV IV embodies over 14 years of design, development, flight testing, and large scale production by Ryan in the field of C-W Doppler techniques. World leader in Doppler air navigation, Ryan Electronics is also making significant contributions toward solving advanced problems in the development of missiles and space vehicles. Ryan Electronics —Ryan Aeronautical Company, San Diego, California. *TRADEMARK



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ARMY editorials

New Frontiers of Research

Basic research—to penetrate the ever-expanding boundaries of science—never is sufficiently funded to reach the new dimensions needed or at least desired on our technological frontier.

One of the Army's most important basic areas is materials research. We know that our engineering design prospects are intimately bound up with discovery of new materials with greatly enhanced properties—conducting, semi-conducting, insulating, magnetic, and structural—and also important—with improvement of existing materials. In materials research, we are working on a variety of approaches—in plastics, ceramics, cryogenics, pryogenics and metallurgy.

It is important to point out that metallurgy is a field that has seen tremendous advances in the last 10 years and can be expected to surge beyond the boundaries of our imagination in the next few years. New metals with amazing characteristics are being created to exploit the great extremes of temperatures, pressures, and purities, which we are encountering or using in the space age. For example, it is estimated that within the next 10 years we shall have beryllium alloys with the strength of steel, but one-fourth the weight. Shortly thereafter will come plastics and ceramics with the same strength-weight characteristics. New steels with vastly improved characteristics are in sight.

Research efforts are also under way to bridge the gap between metallurgy and solid state physics. Rich dividends, here, will permit us to chainlink large molecules to act as electronic circuits, giving us measures of increased reliability and space accommodations in our guidance and other electronic systems almost too fantastic to imagine today.

Lt. Gen. ARTHUR G. TRUDEAU
29 April 1961

Fort George C. Marshall

During its 200-year history as an Army post, Carlisle Barracks, Pennsylvania, has served as a quartermaster supply headquarters, an ordnance center, a recruiting center, an artillery school, a cavalry station, a school for Indians, a general hospital, a medical school and finally, as the home of the Army's senior educational institution, the U. S. Army War College.

This post, we suggest, would be honored if its name were changed to Fort George C. Marshall in memory of the late Chief of Staff, Secretary of State and Secretary of Defense. General Marshall, one of America's great soldiers and truly the architect of victory in the Second World War, was a native of Pennsylvania and to name Carlisle Barracks after him would be following a long-established precedent of naming Army posts after soldiers of distinction who were either natives of the state in which the post is located or whose name is indelibly attached to the post by reason of close affiliation with it.

Nor would the name of Carlisle moulder and be forgotten; for the post lies hard by the pleasant and progressive Borough of Carlisle. We should expect its citizens to be cordial to the idea of naming the post after such a distinguished native son.

The George C. Marshall Space Flight Center at Redstone Arsenal is a NASA facility and by no means precludes the nation from recognizing General Marshall's more than forty years of military service by naming an Army post in his honor.

We invite the consideration of the Secretary of the Army, the Chief of Staff, the Pennsylvania Congressional delegation and all interested citizens.

Leaders Must Lead

The big question that emerged out of a month of troubles is whether the United States could find the will to exert world leadership boldly or be content to follow always and react to communist enterprises too late and with too little. A friend of ours suggests that the description of the Duke of Plaza Toro in *The Gondoliers* is hardly fitting for a nation that would lead the free world today. The description, you will recall if you are a Gilbert and Sullivan buff, goes like this:

In enterprise of martial kind,
When there was any fighting
He led his regiment from behind.
He found it less exciting.

There are some, we regret to say, who think the U.S. can lead by following and to them we can only respond that neither non-communist nations under communist guns nor neutrals are likely to respond with much energy to leadership that pushes rather than pulls. There's danger up front as well

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Modularized, solid-state construction is used exclusively in all systems for utmost reliability, accuracy, low upkeep costs and minimal down time.

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Indispensable Elements of Military Posture

Our over-all military posture must provide a position of readiness to support whatever courses of action our nation may select. We need balanced strength to counter the full spectrum of the threat. We need forces which—together with those of our allies—are tailored for the tasks at hand. Generally speaking, there are four indispensable elements to such a military posture.

The *first* requirement is for forces to deter or respond to thermonuclear attack on this nation. These should include both secure long-range nuclear strike forces which can retaliate against the enemy if we are attacked and the active and passive defense means necessary to insure our national survival. Anti-missile weapons are very important elements of this force.

The *second*—and equally vital—requirement is for balanced, dual-capable land, sea, and air forces which can engage and defeat the forces of our potential enemies in any form of war, nuclear or non-nuclear. A large portion of these forces should be deployed overseas at all times, evidencing to our friends and potential enemies alike our readiness to respond to aggression. . . .

The *third* requirement — which also must receive new emphasis—is for improved capabilities to combat the subversion and guerrilla warfare which constantly threaten the stability of small nations throughout the world. We need better capabilities for our own forces. At the same time, our greatest contribution in this field will be to provide training assistance, operational advice, and equipment to our allies. . . .

Our *fourth* and final requirement is for strategic air and sea lift to project and sustain our military strength abroad—together with the means to protect air and sea lanes from enemy attack.

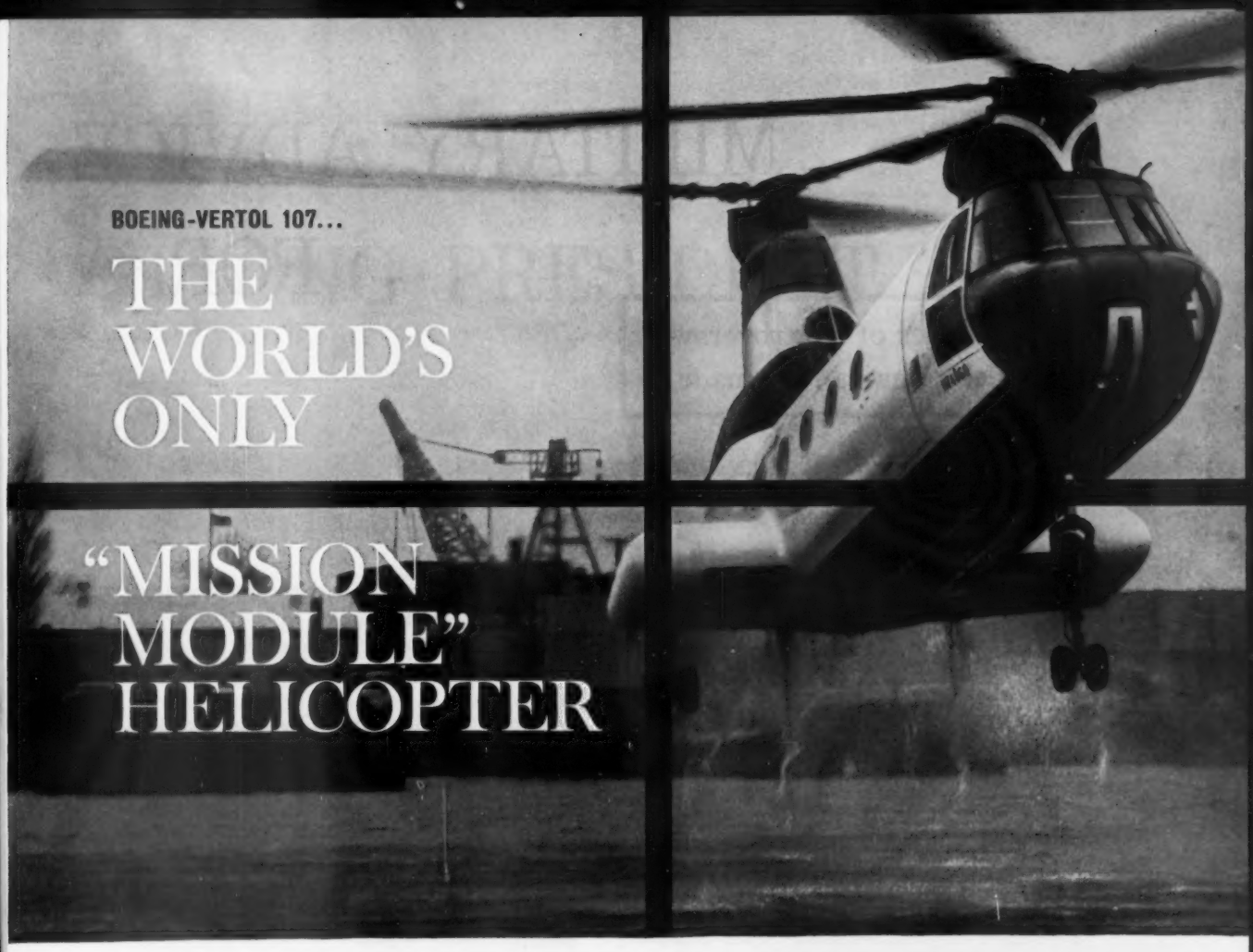
GEN. CLYDE D. EDDLEMAN
10 May 1961

as excitement but any experienced combat soldier will tell you that when you're engaged "safety lies forward" and to push up against the enemy is less costly than precipitate disengagement.

April was a bad month for the United States and why so many things went wrong isn't easy to say. Indeed, if we knew in detail why some things went wrong, we'd be scared to death; if we knew so would a great many other people, some of whom certainly shouldn't. Still there are some observations that can be made of the news from Cuba, Laos, Washington and other parts of the world without trying to pinpoint culprits or intruding into areas a good citizen should shun.

● One of the problems his government thinks it has concerns the maturity and judgment of the good citizen himself. Is he big enough to grasp the idea that we are at war and that undeclared wars can be nasty? Some people, in government and out, don't think he is and they say the government must trim its sails and not do everything it might do if the good citizen were more mature. To get to the heart of the matter is to ask whether our leaders have enough faith in the good citizen to tell him we are at war and that he'd better get his queasy stomach toughened up for the ordeal. In the aftermath of the Cuban fiasco, the President and General Eisenhower and other political leaders spoke reassuringly, giving evidence of American unity in a time of trouble. But in all of this fine display of the bipartisanship that begins at the water's edge no one told our good citizen that we are at war. Mr. Khrushchev knows he is at war and so does Dr. Castro and so does the leader of the communist forces in Vietnam. But it isn't in Mr. Khrushchev's interests to call it war—at least he doesn't do it in a dialectic we can understand—and so he and the others don't do so. But why should we play their game?

● We aren't given to shouting in these columns, but if we were we would shout in black railroad gothic type the thought we want to express in this paragraph. That thought is this: it is time to take a look at the much-prated shibboleth that our struggle with communism is more political, economic and psychological than military. It would be wrong to turn it completely around and insist that the struggle is solely military, but it is past time (is it not?) to begin to remind the good citizen that the problem is as much military as it is political, economic and psychological. Political, economic and psychological warfare against Cuba is extremely important, but if any good citizen thinks at this late hour that Castro is likely to be overthrown without military force, he should put on a dunce cap and stand in the corner. And so too with some other parts of the world. The truth seems to be that too often of late military opinion has been given a polite hearing and quick brushoff. War may be, as Clemenceau said, too important for generals but the Bay of Pigs affair suggests that success in cold war takes something more than the playing of a few fast tunes by ear. Good staff work may be cumbersome but it more than makes up for it in thoroughness. This is a lesson that bright young men should be able to learn quickly.



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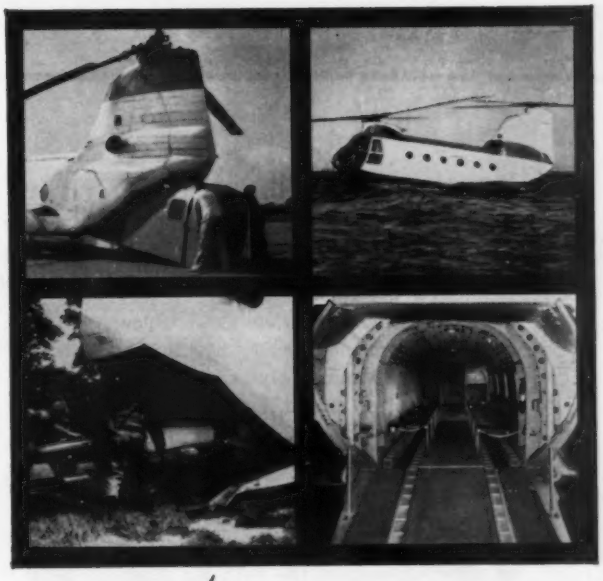
SIGNIFICANT FACTS ABOUT THE 107's WATER CAPABILITY

In the 107 helicopter, water landing capability has been achieved without special flotation equipment or the weight or drag penalties of floats or boat hull. Thus over-water operation can be carried out in full confidence that, should it be necessary, water landings and take offs can be made safely. The helicopter's fuselage possesses good water-taxiing characteristics. Flotation is assured by a factory-sealed fuselage of unique, flexible design; and a remarkable degree of lateral stability is provided by extended stubs on either side of the fuselage that house landing-gear support structure and fuel tanks. Elevated mounting of the rear rotor permits descent and landing in a nose-up flared attitude of as much as 30 degrees with no change in fuselage attitude required before touchdown. This is important in water landings at night, in low visibility or on glassy seas.

The "mission module" versatility of the Boeing-Vertol 107 means a high potential of all-around usefulness in operations. For example, pre-packaged, "plug-in" modules for anti-submarine warfare, minesweeping and rescue missions can be installed internally in a matter of minutes between flights. In addition, the same aircraft can tow, lift or carry heavy or bulky loads externally. Cargo of more than two tons can be speedily loaded or unloaded in the fuselage via the full-width rear ramp.

Along with its water landing capability and "mission module" versatility, the 107 offers the reliability of twin-turbine power. All in all, it is one of the most tactically and logistically useful aircraft available to the Armed Forces.



VERTOL DIVISION BOEING

MORTON PENNSYLVANIA

MILITARY ADVICE FOR A

Out of gales of controversy
. . . decisions can be made

By Colonel Lawrence J. Legere, Jr.

John Fitzgerald Kennedy has said that he intends to be a strong President. The pattern of his determination is still being moulded, but it is safe to say that it will be most strikingly demonstrated in the relationship he establishes with his principal military advisers. There are several reasons for this but the prime one is that national defense must come first in his thinking and his actions. Secondary to this is the influence of the pattern of government of the past eight years. If he is to be a decisive President, Mr. Kennedy will necessarily have to make changes in the system used by the soldier-president who preceded him. Military men accustomed to eight years of General Eisenhower's ways are going to have to stay flexible for a while.

In this important article Colonel Legere explores the regions the New Frontier must master and suggests courses of action that a strong President must take. An outstanding example of Mr. Kennedy's determination to be a strong President came when the Cuban assault blew up in his face. There was no cover-up by the White House. Mr. Kennedy forthrightly accepted responsibility for the failure; indeed, he rebuked those of his official family who sought to provide a political alibi. Colonel Lawrence Legere's explanations cover the National Security Council and the relationship of the White House with the Department of Defense and the Joint Chiefs of Staff in an effort to suggest the path Mr. Kennedy must clear through the jungle of national defense organization if he is to bring decisive leadership in this area of government.—THE EDITORS.

Military Advice and Civilian Control

How the President uses his military advisers will be strongly influenced by the application in practice of the principle of civilian control of the military and this will depend upon how he interprets it, how his chief civilian advisers interpret it, and how the military professionals themselves interpret it.

Civilian control over military men and policy includes the idea of ultimate and responsible civilian authority answerable to the people. It does not necessarily include the idea of civilian officials layered throughout a defense establishment to help compensate for the alleged shortcomings of military minds.

The whole concept of civilian control is far more complex than most persons think it is; it is not mentioned as such in the Constitution, and the separation of powers in that document, which in effect divides civilian control over the military between Congress and the Executive, has probably made it harder to carry out. One authority has found that civilian control, like states rights, can cover a variety of sins and suggests that "it is always necessary to ask which civilians are to do the controlling."

In essence civilian control over the military should be interpreted so as to provide responsible civilian political decision at top level, without hobbling professional performance in professional roles, including the tendering of military advice to the President.

STRONG PRESIDENT

The opening sentence of the most influential report ever written on the Presidential office read: "The President needs help"; but that report, perhaps because of the temper of the mid-1930s when it was written, did not mention the Commander-in-Chief function. As Commander-in-Chief in the 1960s, the President needs a lot of help; help in arriving at decisions which must, however, in the final analysis be his alone. He need not be deterred from using military men because of any threat to the principle of civilian control. In fact, his unambiguous involvement in their major problems is the surest guarantee of a control willingly and cheerfully accepted and supported; this is the conclusion independently reached recently in two distinguished studies, one on presidential power, by Richard Neustadt, and the other on the professional soldier, by Morris Janowitz.

Military Advice and the NSC

For many years all that was available to the public on the mission and functioning of the National Security Council (NSC) were a few rather bleakly expository articles. All praised the Council as a fine instrument of coordination and expressed satisfaction with the orderliness of the NSC "Policy Hill" concept: ideas and policies generated here and there; prepared by the NSC's Planning Board for the Council's consideration; sent up to the Council for final coordination, final debate, and Presidential decision; then directed down "Policy Hill" to the Operations Coordinating Board (OCB) for interdepartmental coordination of follow-up implementing actions by the Departments.

By 1959-60 voices were being raised in criticism of the way NSC was being used. Most of the critics appeared before Senator Henry M. Jackson's National Policy Subcommittee of the Senate. Dr. James A. Perkins of the Carnegie Corporation, a member of the famous Gaither Committee, reminded the subcommittee that the Gaither group had devoted much time, study, and discussion to the NSC, and gave it as his judgment that "the President has not received from the normal NSC routine the kind of sharp debate, the clear differences of opinion, the new ideas that would require major modifications of program."

A STRONG PRESIDENT

—must have a National Security Council that considers issues creatively rather than adopting papers that have been "waffled" into meaningless language at subordinate levels of government

★

Governor Nelson A. Rockefeller said that "the Planning Board really does 95 per cent of the work, and it is not very often that a paper is changed by the Security Council"; he agreed with Senator Jackson's remark that "the tendency was to reach agreement and compromise in the Planning Board . . . rather than to develop papers with sharp alternatives." George Kennan, Robert Bowie, and Paul Nitze, all former heads of the State Department's Policy Planning Staff, thought the NSC most valuable as a forum for discussion of alternative solutions to outstanding problems, and for thus assisting the President in arriving at his decisions on those problems, rather than as an interdepartmental committee for ratifying papers mostly compromised or otherwise weakened elsewhere.

The most incisive military view to be expressed before the Jackson subcommittee came from General Maxwell D. Taylor. Here are some of the things he said about the NSC system and its relation to top-level military advice during his 1955-59 tenure as Army Chief of Staff:

On the system in general: "[It] is most visibly defective in its failure to provide clear guidance for the formulation of military strategy and for the generation of military forces to implement that strategy."

Concerning specific NSC guidance on the massive retaliation *versus* flexible response issue: "By 1958, it was a clear split right down the middle of the Joint Chiefs of Staff and crying for decision. It was never laid before the National Security Council as such, but appeared indirectly twice annually [in the budget and in the annual Basic National Security Policy paper] . . . I cannot imagine a more important question which should have been met squarely and answered squarely."

Senator Jackson himself has expressed as strong a criticism of the NSC as any responsible person: "Indeed, the Council's most important role may be to expose the President to gales of controversy rather than to grind out position papers for his approval," and again: "When compromise begins at the planning stage, the issues which come to the NSC have already lost their sharpness, clarity, and bite. . . . As it now functions, the NSC is a dangerously misleading facade [which] spends most of its time readying papers that mean all things to all men . . . our present NSC system actually stultifies true creative effort in the executive branch."

Weighing the conflicting opinions expressed about the NSC system is not an easy task. On balance, however, the evidence indicates that the system has become overly laden with consideration of papers, many of which have had no business at that level. The few papers that have tried to stake out meaningful long-range policies have had to be compromised or "waffled" at the working level of the Planning Board or even lower assistants. As for the Council proper, it appears that its members have often been reluctant to oppose openly and vigorously papers which already represented an impressive measure of interdepartmental hammering-out.

The other principal shortcomings seem to have been the following, insofar as matters of highest military policy and advice were concerned:

(1) The President was "briefed" only a day or two before the meeting by his own Special Assistant for NSC Affairs. On vital issues, briefing is not enough, nor is it always best for a member of one's own staff to conduct any necessary final briefings on critically controversial issues. The President needs above all detailed information from the responsible principals; he needs sensitivity to processes and substance; he must not wait until the very last phase of the deliberation of others before coming to grips with acts of choice. Decisiveness alone, like briefing alone, is not enough.

(2) Military advice, especially of a kind to point up sharp issues, was inhibited by President Eisenhower's known preference for agreement among his military advisers and by the layers of authority intervening between them and both him and the NSC. This "vertical" handicap was paralleled by the "horizontal" handicap of having only a military observer at the policy-drafting sessions of the Council Planning Board.

(3) The most significant military advice sought at NSC level since 1953 was in support of the "New Look" of that year and later, which set the pattern for the military posture still prevailing and which was conceived, without responsible military participation, primarily as a plan to save money. Regardless of its merits, the "New Look," easily the most significant politico-military long-term decision handled by the NSC since its crea-

tion, made its journey through time and the NSC system by traveling from considerations of money to considerations of military force levels to, finally, considerations of military doctrine—a completely illogical transition.

Military Advice and the Defense Secretary

Everyone seems to have a plan for reorganizing the Department of Defense, and almost all plans propose greater centralization all along the line; "more unification" has such a progressive sounding ring that it would seem only black reactionaries could oppose it. For such simple solutions of complex problems to emanate from certain sources comes as no great surprise. What is a little surprising is that sometimes individuals of a more sophisticated order of intellect and experience will attack military men as being capable of responding only to discipline and command, of being incapable of the more refined arts of discussion and compromise, and will then turn about and attack the Joint Chiefs of Staff for "interservice bickering" instead of getting on with the job in what would presumably be a more military manner. Especially in the past two or three years, many of our distinguished citizens, in government and out, have begun to stress the need for the formulation and acid-bath consideration of sharply divergent national policy alternatives, but why do they draw the line at hard alternatives of national military policy? Do they want a vigorous NSC and a strong President to confront creatively conceived alternative U. S. policies toward Austria or Denmark, but, in facing up to the terrifying decisions of survival, to confront only peaceful harmony among their top military advisers, harmony artificially imposed by greater stress on monolithic unity?

All this is to suggest that greater unification should not be accepted as a self-validating panacea. Undoubtedly more unification is needed, especially along business management lines. But the saving of a few billion dollars, or the production of huge numbers of modern tanks or of missiles of great thrust, or range, or yield, or whatever, will avail nothing if the logically prior Great Decisions on doctrine and policy have not been ground out in the best way we know how, *which is sure to be a complex hard way, not a simple easy way.* All of these matters are of interest to a Secretary of Defense and therefore his role in the formulation of the President's military advice must be clearly understood.

The authority of the Secretary has come a long way since James Forrestal became in 1947 the first to hold the office. By 1960, the incumbent Secretary was able to state: "I have a great deal of authority, reconfirmed in 1958. I thought there was plenty of authority before that, but if there was any question about it, it certainly exists now," and he referred to six decisions which the JCS had called upon him to make during the first six months of 1960, five of which he made within a few hours and the sixth within a week. The new Chairman of JCS, General Lemnitzer, also referred, but by implication and in more general terms, to Secretary Gates' readiness to settle issues in dispute among the Chiefs.

What was less dramatic, but probably more significant, was that Secretary Gates began meeting with the Joint Chiefs on a regular weekly basis. This had not been true of Secretaries Wilson or McElroy during their long period of cumulative incumbency, for General Taylor has said: "Only once in my experience did Mr. Wilson ever sit down with the Chiefs for an extended period to try to understand their difficulties. . . . Although I suggested informal conferences with Secretary McElroy, beginning shortly after he came into office, he never gave the Chiefs any real opportunity as a body for serious discussion of basic issues." Given the method of operation which President Eisenhower found congenial, it would appear that Secretary Gates' willingness to settle points at issue among the Chiefs made him the best Defense Secretary of the Eisenhower years.

But given President Kennedy's different approach to the Presidential office, his Defense Secretary may find regular meetings with the military chiefs valuable, but for somewhat different reasons. For if the new President believes in the pointing up of sticky problems, the Secretary may conceive that an important part of his job is to prod basic issues into the open. Certainly, he is unlikely to be told that he ought to consider himself "a fully affective agent of the President as Commander-in-Chief," and that "the White House will stay out of your hair."

This matter of the respective roles of the President, the Secretary of Defense, and their senior military advisers in the resolution of basic policy differences is one which strikingly illustrates the point that in the past eight years the military have become accustomed to administrative ways which are changing sharply. For example, General Matthew B. Ridgway, Army Chief of Staff from 1953 to 1955, had this to say about Secretaries of Defense: "Nor should they rely for guidance on any one soldier, sailor, or airman, no matter how wide his past experience may have been. *Their decisions, on which the fate of this nation depends,* must be made only after full consideration has been given to the views of all the Joint Chiefs." The words I have italicized illustrate the way in which General Ridgway's thinking had apparently been conditioned by the processes congenial to the Eisenhower Adminis-

A STRONG PRESIDENT

—will want a Secretary of Defense who encourages his joint chiefs to debate all sticky issues so that his recommendations to the Commander in Chief will include realistic choices

tration: it seemed quite natural to him to assume that the Secretary of Defense, not necessarily the President and only the President, should make decisions "on which the fate of this nation depends."

Even General Taylor showed some evidence of having been so conditioned. In 1959, while discussing the "overriding issue" of massive retaliation *versus* flexible response, he wrote: "Until a Secretary of Defense requires the Chiefs to identify these basic divergencies *and to present* [italics supplied] them to him for decision, it will never be possible to avoid splits or to rise above piecemeal action in putting the Defense house in order." It seems stone certain that Mr. Kennedy will never call upon the Secretary of Defense to make decisions of the order mentioned by Generals Ridgway and Taylor. It should be noted that General Taylor did add that "the President held aloof from the internal issues of the Chiefs, depending on the Secretary of Defense to adjust the differences." This, of course, is precisely the pattern here being discussed and compared.

Like most problems in the area of national defense today, the authority of the Secretary of Defense with respect to the advice, often conflicting, which the senior military professionals tender by law to him and the President begins to look a little too complex to be solved by simply legislating "more unification," as so many urge.

In the administration of a strong President, there need be little fear that a Secretary of Defense would use an immediate military or civil-military staff to help him try to make all the decisions, thus blocking the responsible military advisers from contact with their Commander-in-Chief. The Secretary would be far more likely to use that staff to help him separate the big ones from the lesser ones, help him decide the lesser ones, and help him be sure the big ones—for Presidential decision—are kept realistically nasty and complex, not artificially bright and simple.

It is to the President himself that the big ones in the field of military policy are going to have to go if he wants to act as a strong President in discharging his Constitutional responsibility as Commander-in-Chief. Secretary of State Dean Rusk has expressed detailed views about the President's role as Commander-in-Chief today: "The nation looks to the President to play the primary role in deciding the types and scale of military power it needs to defend itself and to support its policy. He cannot escape the crucial task of weighing risks and burdens. . . . Only the President can resolve inter-service rivalries and disputes about their respective roles. . . . In an age of missiles and hydrogen warheads . . . the role of the President as Commander-in-Chief has entered a new phase."

This Constitutional responsibility, in the view of one outstanding student of the Presidential office, is "impossible to delegate and disastrous to ignore"; another, in a recently published study, articulated much the same thought in these strong words: "The President will be commander-in-chief in name only unless he continues to have at least two competing commanders underneath him bringing their disputes to him for adjudication. That is what an issue is . . . and without issues, there are no decisions."

Military Advice and the JCS

The reorganization acts of 1953 and 1958 had, *inter alia,* the effect of increasing the authority of the Secretary of Defense and decreasing the importance of the military department; but, except for some increase in the Chairman's stature, the organization of JCS was not affected.

As an institution of some years' standing which, after all, directed the winning of the greatest war in history, JCS enjoys a certain degree of prescription. The burden of proof for reform is on the reformers.

Each member of JCS except the Chairman is the head of a Service with proud traditions and high spirit, and these responsibilities prohibit them from indulging in "ivory tower" thinking. As Representative Carl Vinson once noted, "It is these men, who have risen to the top in the nation's armed forces after a generation of experience and effort in military life, to whom we must look, and to whom the President must look, for the most authoritative advice on our national defense requirements."

Insofar as JCS runs into disagreements, for which it is criticized for "inter-service bickering," it is simply engaging in the pointing-up of basic policy alternatives, a type of activity most students of the current governmental scene seem to applaud everywhere except in JCS. If the President is eager to make the big decisions, JCS can

do a good job of providing him with the sharply drawn issues to be decided.

The major problems with which JCS deals are not those that lend themselves to briskly military command type decisions. In many cases delay may well be advisable until more general ground for agreement can be established.

Critics of the JCS have been heard to allege that its organization never received the benefit of any administrative logic and that it just grew, like Topsy.

Because any one member can block or delay any given action, the tendency in JCS is often to compromise so that each service gets at least some piece of pie, to delay because delay is the easiest course, or simply to ignore. After four years on JCS, General Taylor said: "Since their civilian superiors often express acute discontent over receiving split papers which they must then decide, the Chiefs have often been inclined not only to spend excessive time in seeking compromises but even to sweep controversial issues under the rug, where they lie dormant for indefinite periods. . . ."

Some critics say that service partisanship, unavoidable in the JCS as presently organized, is the wrong basis on which to point up any sharp alternative policies for decision by the Secretary of Defense or the President. Consider, for example, the highly important alternatives described by General Taylor as "massive retaliation *versus* flexible response." Because the Air Force became identified with the former and the Army identified with the latter, the issue was at least widely appreciated. But we have no assurance that issues almost equally important are not being ignored or slighted because the services represented on JCS, for whatever reason, are not prepared to battle over them. Continental defense of the United States, including civil defense, may provide an example of a job being slighted because no service feels sufficiently identified with the job to fight down the line in JCS for it.

Those who feel that JCS is an unsatisfactory vehicle for furnishing military advice to the Secretary of Defense and the President have advanced several solutions for reform, both drastic and moderate.

Looking at these proposals from the viewpoint of the best military advice for a strong President of the United States will not necessarily yield the same conclusions as looking at them from some other viewpoint—economy and efficiency, for example.

Perhaps nothing could be more neatly calculated to burn down the barn in order to get rid of the mice than the creation of a perfectly monolithic military establishment: a single-uniformed, single service headed by a single chief of an armed forces general staff. Such an establishment would be guaranteed capable of swift answers, but not necessarily the right ones, or even the most nearly right most of the time. The Secretary of Defense could easily degenerate into a figurehead under such an arrangement, and "as for the principal executive, unless he is confronted with competing forces, he has little opportunity to see alternatives and little power to do anything but approve one segmental recommendation after another." The military Departments of the Army, Navy and Air Force may soon disappear and so some day may the military services themselves, but in that Brave New World of the future there had better be other ways of deliberately building in conflict and policy alternatives.

Somewhat short of the single-service extreme solution is the idea of a single chief of staff to preside over an armed forces general staff, with perhaps over in the wings somewhat a panel of Nestors called a Supreme Military Council, the functions of which, as hastily sketched by its advocates, almost lead one to conclude that it was conceived as a sop to the opposition. This differs but slightly from the single-service solution. Under both, Walter Millis has observed, "the civilians might feel more comfortable, but the nation would lose the creative values of difference, or variety, and of debate."

Designating the Chairman of JCS as principal military adviser to the Secretary of Defense, the NSC, and the President would be a half-way house type of legalistic solution that would satisfy no one. That is how it worked, without any facade of legislation, when Mr. Charles Wilson was Secretary of Defense and Admiral Radford was JCS Chairman. "The day we didn't go to war," should give pause to the proponents of this proposal. On 3 April 1954, the Admiral, speaking only for himself (all his JCS colleagues disagreed), counseled military intervention into the Dienbienphu debacle in Indochina. Fortunately, alert questioning by key Congressmen haled to the Department of State that morning established the lonesomeness of the Admiral's position, and nothing, in the end, happened.

There remains for consideration the general category of reorganization proposals which contemplate a division of the armed forces and of the President's principal military advisers according to mission rather than according to medium of locomotion. This could very well work. As General Taylor points out, it would have the advantage, budget-wise, of letting us know where our money was going, in contrast to current military budgeting, which simply allots so many billions into the Army, the Navy and the Air Force, with all their overlapping missions and duplicated hardware. Another advantage would be that

Army, Navy and Air Force officers in the functional commands would come to know one another as junior officers, instead of having to wait 15 or 20 years for joint staff or joint school assignments. It would not have to disrupt the familiar services, uniforms, traditions and skills. Perhaps most important of all, it would be flexible enough to withstand occasional readjustment to changing conditions: an officer may conceivably become so dedicated to the Army as to lose his objectivity, but would be unlikely to put the "Tactical Command" above his reason and intelligence.

The Symington Committee's proposed reorganization contemplated these mission-type commands, but within a single-chief-of-staff framework. They would be field commanders, responsible to the single chief. What seems far better calculated to the advantage of a strong President is to have the functional commanders constitute his new principal military advisers, and let their battles boil to the surface for the top-level civilian political decision that constitutes true civilian control of the military.

The Army, the Navy and the Air Force would continue as military services, but, as the Reorganization Act of 1958 clearly contemplated, those services and their chiefs would become suppliers of trained people and materiel—in this case for assignment to the functional commands. Those who oppose removing the service chiefs from the present JCS often cite the danger of divorcing planning from operations and responsibility from authority; General the Lord Ismay, for example, tells us: "The idea of three men of genius living in splendid isolation and divorced not only from the harsh realities of administration but also from any responsibility for the execution of their brainwaves, would not find many supporters among men of experience."

This argument must dissolve before the logic of a scheme which would place the responsible functional commanders on the highest military tribunal, the "new JCS." The Secretary of Defense and the President would receive military advice from fully responsible commanders, and the occasional differences of those advisers on questions of basic military policy would be tailor-made for relatively easy understanding in terms of missions, instead of being stamped with ambiguous ground, sea or air labels.

One of the most interesting analyses of the organization of the armed forces and of JCS has been written by Dr. Malcolm Hoag, an economist—and, therefore an expert—in choices among competing claims on limited resources. His conclusion is this: "There is much to be said for such a functional grouping. . . . We may get a better idea of what we are being asked to buy, and this should facilitate better choices. . . . [But] one doubt is, would old interservice fights give way to new intercommand ones?"

The answer is a loud "Yes, indeed!" Fights would survive, and the sharper the better, from the viewpoint of a strong President of the United States. Settling such fights is "an ordeal no President can share," and Mr. Herbert Feis, who wrote an article with that title, concluded: "That duty, when peace or war is at issue, [a President] cannot assign or leave to others without forfeiting the responsibilities of his office. Although the rod of fire may be passed about, it comes back to him. It is his 'yes' or 'no' that settles history."

Conclusions

Civilian control over the military should not be so interpreted as to inhibit direct contact on important issues between a strong President and his principal military advisers.

The National Security Council system, as well as the Council itself, should provide for more direct participation by the top military professionals or their representatives, especially if, as seems likely, the Council under the new President becomes less of a paper-processing committee and more of a Presidential advisory council.

The Secretary of Defense should regularly participate in the meetings of his (and the President's) principal military advisers, encouraging the frank expression of divergent opinions and preparing to carry the big ones to the Commander-in-Chief for decision.

The Secretary of Defense should have a small military or civil-military staff to assist him in his dealings with his (and the President's) principal military advisers on the one hand, and in his dealings with the President himself on the other hand.

Single service, single uniform and even single chief of staff type solutions to what is contemptuously called JCS "bickering" would tend to insulate the President from the kind of alternative military policy proposals he needs to receive.

Deserving further study and refinement, as a general reform calculated to improve the nature and impact of the President's military advice, are such reforms as the return of the service chiefs to their services; creation of armed forces functional commands comprising appropriate elements of the Army, Navy and Air Force, perhaps initially a Strategic Command, a Tactical Command, and a Continental Defense Command; designation of the top commanders of the functional commands as principal military advisers to the Secretary of Defense, the National Security Council, and the President, and their nomination as a new corporate body to replace the Joint Chiefs of Staff.

The First *Combat Infantryman*

COLONEL STEDMAN CHANDLER

● The enwreathed musket of the Combat Infantryman Badge has become the acknowledged symbol of the Infantry—the Queen of Battles who, in the last analysis, has won every war in history and is not likely to play a minor role in any future conflict, no matter how atomic. It seems reasonable, therefore, to search for a man to match this symbol, who can stand as the prototype of the Queen's Men: America's Combat Infantryman No. 1.

R. W. Thompson, a British author and war correspondent of World War II, has rightly said: "There are bad generals and bad privates. It is no great matter." But it *is* a great matter if there are bad small-unit troop leaders—leaders of squads, platoons, companies, battalions. War has no place for them; in every winning army you will find they've been weeded out, and that the remnant is a hard core of tough-bodied, tough-minded men remarkably equipped to do what must be done. A good general can train these men and use them properly; a bad general can misuse and sacrifice them; no general can do what they must do: the dangerous, dirty, decisive job of fighting. All armies in all wars have had them, and America, from Plymouth Colony to Korea, can point to an impressive Honor Roll. From such a list it should be hard to pick a prototype, and yet it isn't hard. There is such a man, and among

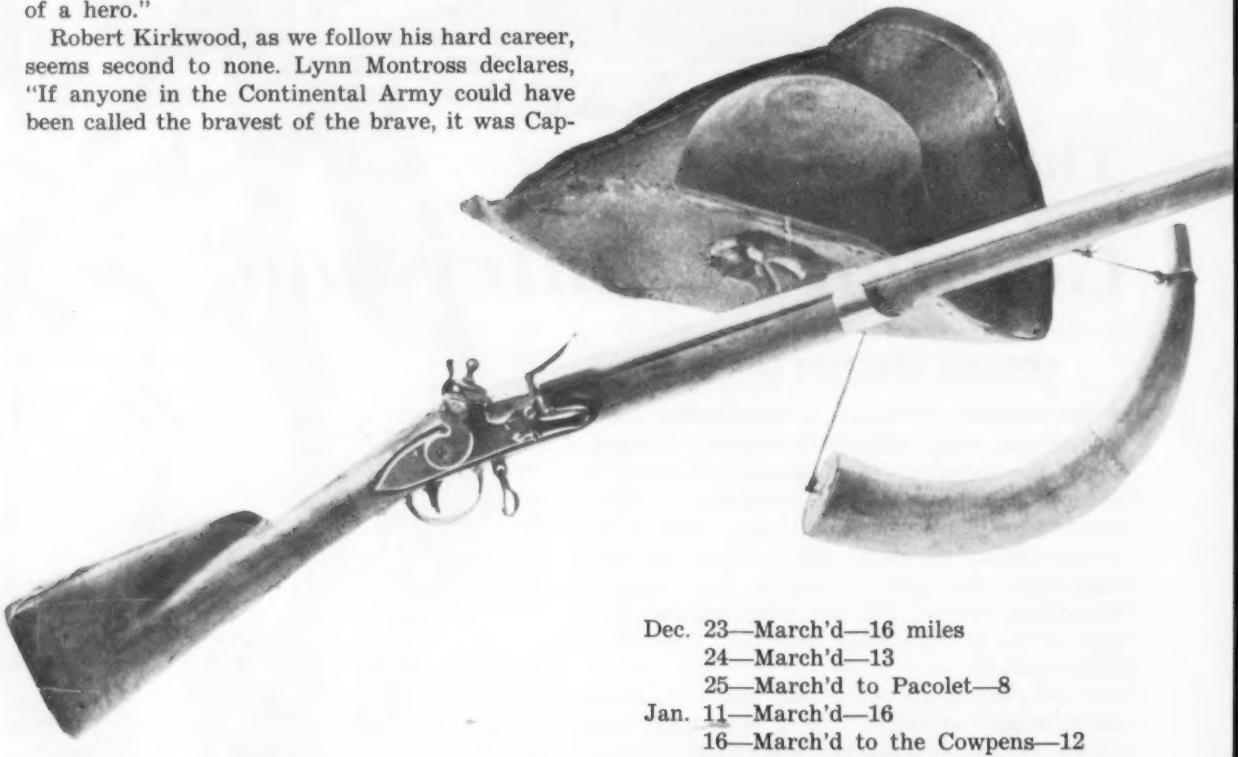
all the many candidates you will find none more worthy.

Many fine histories of our War for Independence don't even mention him, yet the name of Robert Kirkwood should ring like a strong clear bell for everyone who cherishes the military heritage of the United States. This young Delawarean made a record, documented beyond all doubt, before which we can only stand in awe. The more actual combat one has personally experienced, the more profound his awe.

"Greene's Delawares," says the historian Henry Phelps Johnston, "were the admiration of the Army and their leader, Kirkwood, was the American Diomed." Diomed, Thomas Bulfinch tells us, was "second only to Achilles in all the qualities of a hero."

Robert Kirkwood, as we follow his hard career, seems second to none. Lynn Montross declares, "If anyone in the Continental Army could have been called the bravest of the brave, it was Captain Robert Kirkwood of the Delaware Regiment." Henry Lee referred to "the company of Delaware, under Kirkwood, to whom none could be superior." Nathanael Greene paid repeated tributes to "the brave Kirkwood" and if the unanimous praise of his superiors is not enough, hear the verdict of his own Sergeant Major, William Seymour, written midway in Kirkwood's career: "Captain Robert Kirkwood, whose heroick valour and uncommon and undaunted bravery must needs be recorded in history till after ages."

It is difficult (and extremely annoying to one who would make a three-dimensional, flesh-and-blood character of him) to write of Kirkwood without dealing in superlatives. Little has come down to us descriptive of his person, his personality, or his personal flaws, which we must assume he had like any human. He led his men and they followed into battle his red shock of hair upon which no hat would remain. His superiors valued his service and lavished praise upon him; his subordinates—and Seymour's evaluation is the only clue—gave him the kind of "followership" of which every leader dreams. He himself was reticent. Though he has the distinction of leaving the most professional diary of the war, his *Journal* is terse and unadorned and his *Order Book* gives only occasional hints as to what might have made him tick. What can you do with a *Journal* that reads like this?



Dec. 23—March'd—16 miles
24—March'd—13
25—March'd to Pacolet—8
Jan. 11—March'd—16
16—March'd to the Cowpens—12
17—Defeated Tarlton

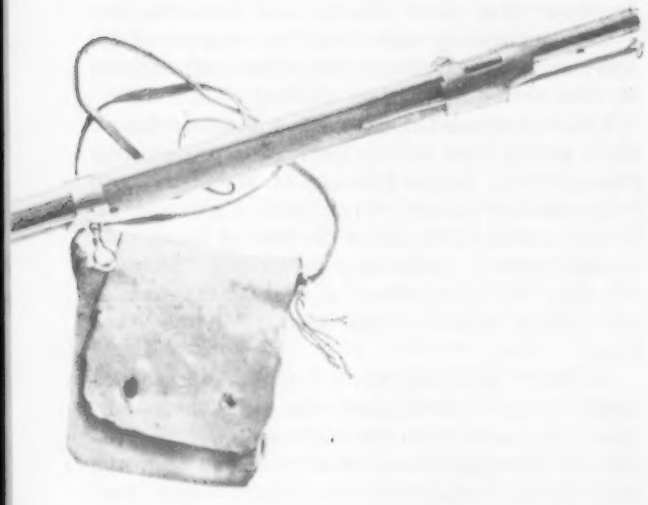
"Defeated Tarlton," of course, refers to the almost complete destruction of a small British army, and this same Colonel Banastre Tarleton, who escaped from the Cowpens by the skin of his teeth, was later almost captured by the same Kirkwood, who missed him by an eyelash.

You find Kirkwood at the keypoint of almost every important action in the Revolution. He was in 32 in all; his thirty-third fight came later, and cost him his life. And here we may digress.

It is odd, intriguing and unexplained, but the hard core of the Continentals of both Washington in the north and Greene in the south, from start to finish of the war, was composed of men from Maryland and Delaware. These two small

states kept the ranks of their Continentals well filled. From Long Island to Yorktown, the Maryland regiments and the Delaware contingent (first a regiment, later a mere handful) were the units that could always be counted upon, that seldom failed and never badly or without excuse.

There were other good units and some great ones: Morgan's, Wayne's, Glover's, Marion's, Lee's legion (leavened by some lusty Delawares), and the tragic twin columns that bearded Canada, but none with the solidly consistent record of these two. Even the immortal 1st Maryland failed once, at Hobkirk's Hill. The Delawares went



through nearly seven years of war, at the keypoint of every action in which they participated, with a reputation that began and ended without blemish. This record has never been adequately explained and quite possibly has never been equalled either. Johnston said the Delawares were "not excelled by any troops in America, perhaps in the world."

They called the Delaware troops "The Blue Hen's Chickens," a name still sometimes applied to citizens of The First State. This was because one of the early companies, Jonathan Caldwell's, took to war for its after-action sport some fighting cocks bred from a certain famous steel-blue hen. For some obscure reason this hen's foster-chickens never had to be blooded in battle as most troops do. They distinguished themselves in their first fight; they were virtually annihilated twice; they ended the war as they began it: disciplined, competent, courageous, incredibly durable. Bruce Lancaster refers to them as "the indestructible Delawares" and again as "Kirkwood's inexhaustible Delawares." John Churchill, Duke of Marlborough, once said, "If I could put a regiment through three battles in which its bravery reduced it to a skeleton, the remnant made the most dependable soldiers in the world." These words thumbnail the redoubtable Delawares.

The Delawares included scions of the state's best families, and a heavy leavening of rugged little Ulstermen, many of whom had been born in Tyrone and Antrim, Donegal and Down. Of these troops General Greene once said, "They exceeded all soldiers I have ever seen, as they would fight all day and dance all night."

I have made an exhaustive study of the individual records of the Blue Hen's Chickens in the Delaware military archives, and the term "indestructible" merits attention. In December 1782 the two remaining companies left their camp on the Ashley River in South Carolina and started home. When they arrived, 720 miles later, they were 5,006 miles from their 1780 starting point. These two companies comprised 120 men. Thirty-three—27 per cent—had been members of Colonel John Haslet's original Delaware regiment in 1776. A large proportion of the other 87 stemmed from 1777. Haslet's regiment, virtually annihilated after Trenton, was disbanded. A new Continental regiment was formed under Colonel David Hall. This outfit fought the battles in the north, then was sent south to bolster Gates. It was again almost annihilated in its first fight, at Camden. The remnant, under the senior captain, Kirkwood, continued under Greene, and fought the war out. Including another group which fought at Yorktown and then went south, there were well more than a hundred Delaware men who lasted from 1776-77 to 1782-83, and this in a war in which desertion was the rule rather than the exception.

Yes, these Delawares were indestructible, and veterans of our mechanized wars should ponder their march, and *how* they "march'd": 5,006 miles (exclusive of the northern campaigns), a good part of the time without shoes to protect their bleeding calluses, and with many a vicious fight thrown in. After Trenton Haslet's regiment had been cut from 800 to 124; Hall's (then under Joseph Vaughan), after Camden, from 500 to 188. The trail was both long and grisly. Over much of it, Kirkwood held them together.

Robert Kirkwood was born at Mill Creek Hundred near Newark, Delaware, and was educated for the Presbyterian ministry at the Newark Academy, now the University of Delaware. Reports differ: some say he was a farmer, some say a merchant, others that he went straight from the Academy into the service of his country. The last seems most likely, since we know he was commissioned first lieutenant on 17 January 1776, at the age of twenty. He was at Long Island, where the Delawares first distinguished themselves, at Fort Putnam, and at Chatterton's Hill. Before Trenton he was a captain, but since he was busy recruiting he may have missed both Trenton and Princeton, where the gallant Haslet was

killed. Kirkwood was one of the nine Haslet officers who joined Hall's new regiment which, after Princeton, took active part in all the remainder of the northern campaign until 1780, when the Maryland-Delaware Line was sent south.

It is obvious that from the start Kirkwood exhibited high military qualities, though we have scant record of it, he not having opened his *Journal* until the southern march. But after the disaster at Camden where, as John Thomas Scharf notes, "the heroism of the Delaware and Maryland regulars made this grim and deadly fight immortal," the shattered Delawares were in Kirkwood's hands. Lieutenant Colonel Vaughan and Major John Patten were captured, fighting at the tip of De Kalb's spear, and Kirkwood was senior captain, with a bare two companies still answering at muster.

From then on we hear nothing but all-out praise of the "Delaware remnant, under the brave Kirkwood." Read Greene, or Light Horse Harry Lee, or any of the historians who have discovered him—especially the modern writers who have done research in depth—and you will seldom find the name Kirkwood without the adjective "brave." But reading these, I always go back to his Sergeant Major Seymour—a good man in his own right—and his "heroick valour and uncommon and undaunted bravery must needs be recorded in history till after ages." What greater tribute could any troop leader ask?

Seymour wrote this after Camden, when Kirkwood had barely begun to fight. After Camden Gates formed the two Delaware companies into light infantry — literally "foot cavalry" — and joined them with the dragoons of William Washington, already established as a rugged combat leader. Fat and genial, but strong and hard-fibered, Washington found Kirkwood an ideal cohort. When Nathanael Greene took the command from Gates at Charlotte in December 1780, he found a compatible and effective pair to use as he saw fit. He used them until he wore them out, but by then the war was won.

For a pleasant change Kirkwood's next battle was a victory, that model set-piece devised by the fertile brain of Daniel Morgan at the Cowpens. This is the fight noted in Kirkwood's *Journal* as "Defeated Tarlton." Tarleton was destroyed, thanks to Morgan's peculiar genius. Even so, according to Scharf, the day would have been lost had the veteran Maryland and Delaware regulars wavered at the decisive moment. Instead, as Seymour reports, "Tarleton endeavoured to outflank us on the right to prevent which Capt. Kirkwood wheeled his company to the right and attacked their left flank so vigorously that they were soon repulsed." Scharf adds that never before was there known such quick loading, discharge and reloading of flintlock muskets and rifles as the Delaware and Maryland men then displayed; the rapidity and accuracy of their fire demoralized the British.

We must note that these men of Maryland and Delaware not only repeatedly held their ground against any and all odds but were always ready and able to counterattack. They were vicious with the bayonet, a rarity with Americans in any war, and they fired their weapons accurately and often. This can have been due only to training and leadership. In the Revolution (as General S. L. A. Marshall found in World War II), report after report bemoans the failure of men to fire. It is firepower that wins battles, and Greene's firepower consistently came from the weapons of his Maryland-Delaware Line. Most other units appear to have been quite listless about it.

After Cowpens Greene made his masterful retreat to the Dan River, leaving to protect him General John Eager Howard of Maryland with "the flower of the army" (including Kirkwood). It was, according to Seymour, a chase in which both armies suffered incredible privations. "Most of the men," he wrote, "were entirely without shoes and had no time to cook what provisions they had."

As they retreated, Lee's Legion (with Kirkwood along) continuously harried their pursuers and more than once almost captured the elusive Tarleton. Lee's cavalry almost got him once and Kirkwood's foot came even closer. Seymour tells us that on the night of 6 March 1781, "there commenced a smart skirmish in which great numbers of Tories were sent to the lower regions. We marched for camp which we reached about daybreak, having marched all night through deep swamps, morasses and thickets—26 miles." Tarleton escaped again, but it was a near thing; the fox had almost caught the hound.

As the chase went on, Greene wrote: "For more than two months more than one-third of our men were entirely naked, with nothing but a breech cloth about them . . . and the rest were ragged as wolves. Our beef were perfect carrion, and even bad as it was, we were often without any."

Then on 15 March, having received reinforcements, Greene decided on battle again, and risked one at Guilford Court House. Employing Morgan's Cowpens tactics, he placed the North Carolina militia in the front line, to fire and fall back, Kirkwood was on the right flank, with Washington's dragoons and Lynch's Virginia riflemen. When the British attacked (in mass formation, according to a custom they could not unlearn) the Carolinians broke, most of them without firing at all. The second militia line behaved better but eventually they and the Virginians re-

tired, passing the weight of numbers to the enemy. Then the brand-new 2d Maryland broke and the brunt of decision fell upon Greene's veterans: "The 1st Maryland, the company of Delaware, under Kirkwood, to whom none could be superior, and the Legion infantry." The Marylanders, with Kirkwood, counterattacked with "furious courage," beating back several times their number.

Though Greene failed to hold the field, he gained the victory; the damage done to the best troops of Cornwallis was, as it proved, irreparable. Even the haughty Tarleton acknowledged Guilford as "the pledge of ultimate defeat."

Kirkwood still had work ahead of him, including an independent foray against Logtown which resulted in a brisk fight. Shortly after, at Hobkirk's Hill, American confusion and mistaken orders resulted in a setback, but by now it was apparent that the Delawares were winning nothing but praise. "They maintained," Scharf says, "their untarnished reputation." Greene's orders of the day for the 26th commended the "gallant behavior of the light infantry, commanded by Captain Kirkwood." Seymour recorded in his diary that "in this action the light infantry under Captain Kirkwood were returned many thanks by General Greene for their gallant behavior."

At the abortive siege of Ninety Six, Kirkwood's light troops were with the infantry of Lee's Legion, under the redoubtable Mike Rudulph (Kirkwood's closest rival for the title of Combat Infantryman No. 1), and they behaved with their customary valor. They were, in fact, the only troops to get into the fort itself. There they stayed until Greene, upon the approach of Lord Rawdon, deciding to raise the siege, ordered them out. From Long Island on, these Delawares exhibited a strong aversion to retreat, and never did unless ordered to or driven by overpowering force. When they did, they fell back sullenly and in good order.

So finally they came to the end of their battle road at Eutaw Springs, on 8 September 1781. This was a peculiar battle which the Americans should have won hands down and almost did. Strategically it remained a victory but tactically it was, as Montross aptly says, a trifle tarnished. This was due to the unhappy fact that when the Americans overran the British camp, even the usually reliable Marylanders yielded to the lure of a lush supply of British grog. Whole companies got drunk; the enemy counterattacked, drove them out, and captured their artillery.

Meanwhile, Kirkwood, who had been fighting a rear-guard action all day, was trying to push the British out of a strong stone house, turned into a fort as the Chew House had been at Germantown. Kirkwood's unstoppables were at the very door when forced to give way by superior fire; they escaped only by grabbing prisoners and using them as shields. Stubbornly as always, they moved back through the British camp, where they found themselves alone, the army having fled. But Kirkwood's words tell how far from licked they were: "Found our army had withdrawn from the Field, made it necessary for us Likewise to withdraw. We brought off one of the Enemy's three Pounders, which with much difficulty was performed through a thick wood for near four miles without the assistance of but one Horse."

Again, according to habit, the Kirkwoods were the last men out, disciplined and in good order, dragging a trophy with them.

Greene viewed Eutaw as a victory, which in every important respect it was, and he was generous in his official report to the President of the Congress. "I think myself principally indebted for the victory obtained to the free use of the bayonet made by the Virginians and Marylanders, the infantry of the Legion, and Captain Kirkwood's light infantry, and though few armies ever exhibited equal bravery with ours in general, yet the conduct and intrepidity of these corps were peculiarly conspicuous." For a most signal victory the Congress then thanked Greene, and the Maryland and Virginia brigades and the Delaware battalion for the "unparalleled bravery and heroism by them displayed in advancing to the enemy through an incessant fire and charging them with an impetuosity and ardor that could not be resisted."

Kirkwood was sent to the Congaree River, where he took the ague and fever, and spent a month recuperating at Daniel Huger's plantation. Then he and his officers were relieved from duty after more than six years of continuous service, and they "march'd" home. By the time all were there (the troops coming much later) they had those 5,006 walking miles behind them, and a long list of viciously fought battles, without a black mark anywhere.

In evaluating this record there are several points to remember. First, the Southern Army, under Gates and Greene, was a motley and fluid force. It was bloated one day by an influx of local militia who sometimes fought well and often badly, and who always melted away promptly after every fight, to return later or be supplanted by others ever rawer. This logically would confuse if not disorganize any small core of regulars who never knew where they stood, but throughout the long campaign the Maryland-Delaware Line remained steadfast, almost without exception.

Secondly, these regulars were fighting in an alien climate and a harsh one; their hardships,

even had they been properly equipped to meet them, would have been exceptional. But they were not so equipped; they fought shoeless and in rags and subsisted on molasses, frogs and alligators. Also, they got no pay.

Finally, they fought in a region seared by one of history's most savage civil wars, with both sides—Tories and Whigs—admittedly guilty of inexcusable excesses. It was an atmosphere both dangerous and degrading, yet at no time do we find the Continental Line befouled by it. They fought their own war, grimly by themselves, taking no part in the local butcheries and often preventing them.

Considering all we know about the individual soldier of the Revolution, his independence, levelling attitude, and scorn of authority, the record of this Continental Line must reflect only the most commendable and superior leadership.

Since here the Delawares are our chief concern, the superlative record of the small band he commanded must be charged to the exceptional military qualities of Robert Kirkwood, the veteran captain who even at the war's end was still in his middle twenties.

Captain he remained. Hear Light Horse Harry Lee: "Captain Kirkwood passed through the war with high reputation; and yet, as the line of Delaware consisted of but one regiment and that regiment was reduced to a captain's command, Kirkwood could never be promoted in regular routine. . . . The sequel is singularly hard. Kirkwood retired upon peace, a captain (he had been brevetted major) and when the army under St. Clair was raised to defend the West from the Indian enemy, this veteran resumed his sword as the eldest captain in the oldest regiment. In the decisive defeat on the 4th of November, 1791, at the battle of Miami, the gallant Kirkwood fell, bravely sustaining his point in the action. It was the thirty-third time he had risked his life for his country, and he died as he had lived, the brave, meritorious, unrewarded Kirkwood."

The sequel was indeed hard. Returning to Delaware, his state granted him an award of 100 pounds, but only Virginia really rewarded his services. From the Old Dominion he received a grant of 2,000 acres of land in North West Territory, in what is now southeastern Ohio. His land was probably in Belmont County, across from Wheeling, where he removed soon after the grant was made. In 1790 he was a justice of the peace, and a carefully written copy of the laws promulgated by General St. Clair is found in the back of his *Journal*, together with some interesting items from his docket. On 4 March 1791 he was commissioned captain in the 2d Infantry, and "march'd" again, under St. Clair in his hapless expedition against the Indians. St. Clair was ambushed and his troops, largely militia and as poor in quality as any ever assembled, were scattered and slaughtered. Only small groups of Regulars stood and fought. One of these was led by Kirkwood, who refused to give ground and died with his face to the enemy at Fort Recovery, Ohio. "There, resting beneath a tree, lay old Kirkwood, scalped, his head smoking like a chimney." A more honorable son the United States has never had, nor a braver one.

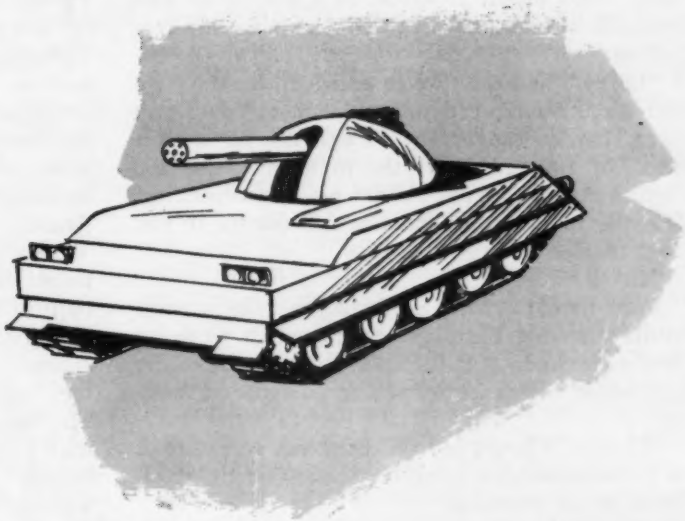
Since Robert Kirkwood survived the Revolution there is no certainty, even under today's more liberal system of awards, that he would have been awarded the Medal of Honor, though the Continental Congress actually did grant medals to Morgan, Howard, and William Washington for the Cowpens, where Kirkwood was almost equally distinguished. But it is hardly arguable that by today's standards, the rugged Delawarean would have worn a Distinguished Service Cross with more Oak Leaf Clusters than any one ribbon could fairly carry. It would be interesting to know of any company officer in the Army who ever received more citations and glowing tributes than Kirkwood. But he was never awarded a medal or any current counterpart, and his brevet came very late: as major on 30 September 1783.

Without the Kirkwoods of that war, and of all the wars that followed, there could have been no United States of America. One real disaster for Greene, and the Revolution would have collapsed. To be sure, Kirkwood didn't win it single-handed; nevertheless, he and his men were ever at a critical spot, and over the whole long route there is no hint of their having failed; only of staunch and vital service. As Colonel John W. Thomason said of Marbot, Kirkwood loved his country and the Army and all his record is honorable.

There are bad generals and bad privates. It is no great matter. But for the key men, the "cornerstone men" as R. W. Thompson calls them, the men who win or save battles, there are no substitutes. Modern research in depth applied to the battlefield has proved what all combat veterans already know: that every battle is won by such men, singly or in small groups, fighting on their own initiative at the right time in the right place; and that such men are rare. The same type of research reveals that few men—and only truly exceptional men—ever sustain, over long periods, their peaks of either capacity or daring. In this light the simple chronicle of Robert Kirkwood seems to define the man, and the shadow he casts is a long one. It is therefore no more than just that now, nearly two centuries later, we salute him for what he was: America's Diomed, America's Combat Infantryman No. 1. This is his overdue reward, and one he would have liked. And so would the Blue Hen's Chickens.

ALFA 38

The Gatling gun and tracks combine into an off-the-shelf mobile weapons system for reconnaissance outfits



Maj. MERSHAN G. SHADDY

THE 2d Reconnaissance Squadron of the 10th Cavalry reached line Counter at the beginning of a tense situation. Contact with the enemy was imminent.

Lieutenant Mitchell's 3d Reconnaissance Platoon was in position along line Counter. Sergeant Bolt had made contact with the 2d Platoon on the left flank. No tie-in with Troop B on the right flank as of 1540 hours. Lieutenant Mitchell issued instructions for a patrol from the scout section to gain contact with Troop B at check point April.

Sergeant Barton, scout section leader, studied his map. The end of his cigar became frayed from the constant whipping by the wind. His finger traced the map as he spoke:

"Slim, you should find B Troop's 1st Platoon somewhere near check point April; more than likely here on this high ground overlooking this road net. Lieutenant Mitchell just got the word from the CP that Bravo was on line with us. Make your usual check-in with us."

Now is was 1630. Slim Small's patrol was ready to move out. Knowing that no contact with the enemy had been reported along line Counter and not knowing what to expect, he took two vehicles, Alfa 38 (a full-tracked scout vehicle mounting a 20mm automatic gun) and a scout quarter-ton.

Small zipped his one-piece battle suit tight against the cold wind. His "Move out!" lashed back at him.

At check point Lima the patrol turned left at the road junction. Two miles down the road the intercom buzzed. The voice of Sergeant Small's driver came through: "I don't like the looks of this road. Are you sure we took the right turn back there?"

The road was straight and narrow. It looked like a bowling alley: a perfect spot for an anti-tank ambush. Small told his driver to button up and slow down to a crawl. He alerted the gunner. After a moment's silence he pulled his vehicle off the road and into the brush. His voice crackled through the intercom: "I'm going to send the quarter-ton on ahead. Gunner, select a 50-round burst at 3,000 rate. Be prepared to range. Cover the quarter-ton."

A puff of smoke belched out of the brush alongside the road about 700 meters ahead of their position. A round of HE (high explosive) burst in the trees to the right and behind them. The gunner, spotting the smoke through the unity field scope, quickly ranged in with three rounds of 20mm. He pressed the firing button as another round of HE burst on line and left of their position. Fifty rounds of 20mm HE and API (armor-piercing incendiary) ripped out of six barrels in a one-second burst toward the last disappearing bit of smoke. Bursts of flame and smoke arose around the target.

The gunner flipped his rate selector switch to 200 rounds per minute, and raked right and left of the smoking target. The crack of 20mm in the target area clattered back in quick punching sounds.

Sergeant Small yelled into the intercom: "I don't think we'll get any action out of them for a few minutes."

From their rear came the sharp rattle of machine-gun fire and the dull thud of HE. The intercom blared out: "They've knocked out Birk's jeep from behind us. There's an APC and an SP on the left side of the road; to our rear about 400 meters. Wright's been hit."

Sergeant Small knew that if they were to get out there wasn't much time to lose. The enemy would bring up another self-propelled gun in minutes. He was thinking furiously. His people were on the same side of the road as the enemy behind

them. That meant it would be a matter of who moved first and fired first with the most effective rounds.

"Larry," he said, "we're going up on the road and stop, facing the way we came. You won't have time to range. Try to nail the SP with a burst of 100 rounds at the high rate. Use 400 meters range. Fire the instant you see something. Use the unity scope and fire two bursts if you need to. Got it?"

"Got it!"

From habit Corporal Larry fingered the ranging switch, moving his finger from switch to firing button. He knew that the natural dispersion of the gun would compensate for a small error in ranging.

"Driver! When I say Go, bang out to the road in the direction we came from. Stop on the road. Move on my command."

"OK, Sergeant."

Corporal Birk and Private First Class Wallace helped Trooper Wright to the rear deck of Alfa 38. "Let her go, Sarge!" Birk yelled. "We're on."

"Go!" Sergeant Small commanded.

Corporal Larry felt Alfa 38 lurch beneath him. Through the periscope as they moved out of the ditch he saw the treetops across the road in a blurred motion of movement. As the vehicle came to a sudden stop he banged against the scope despite his brace. Suddenly, he was facing the enemy SP and APC coming out of the ditch. He laid while Alfa 38 rocked slightly, then pressed the firing button. The ripping sound of the burst filled the air. The thin-skinned armored vehicles of the enemy were caught flat-footed. They never moved again. Alfa 38 was clear.

At check point Lima they ran into a patrol from Troop B, and exchanged information.

"When we heard the firing we knew it was one of our people," said the sergeant from Troop B. "We were on our way to help when we saw you coming up the road." He nodded toward the rear deck of Alfa 38. "Looks like your man's in bad shape."

"He's all right; shell frags in the leg."

They shook hands, parting in the dim light.

On the trip back Sergeant Small asked his gunner what had happened to the second burst. Corporal Larry evaded his question. "One hundred rounds was plenty."

Sergeant Small smiled. He knew Larry had frozen on the firing button. The gun had cut itself off. Hadn't it happened to Small himself? It does to the best. If Larry had let up on that button, another burst could have been fired in three seconds. So long as he held the firing button down the limiters automatically cut off fire until he released it.

THE vehicular role of Alfa 38 might well be filled by one of the light, full-tracked chassis now standard or being developed. For the weapon system, the Vulcan M61 20mm automatic gun could, with minor modification, fulfill the gun requirement. The Vulcan has been in production for some time, and currently is in the Air Force's arsenal, being installed on four aircraft now produced.

Here is an off-the-shelf weapon which has been tested. To adapt the gun to the ground role will require a modest modification, but the cost and time (six months) in no way compare with the expenditure and time required for a weapon system that might well prove inferior to this one. The Vulcan gun weighs 260 pounds. When armed with a simple fire control, feed system, and 1,000 rounds of 20mm ammunition ready to fire, it weights only 1,080 pounds as a complete weapon system. A similar weapon system loaded with 2,000 rounds would weigh 1,844 pounds. Recent investigation proved that Vulcan can be mounted on a tracked vehicle.

Vulcan employs a modern version of the Gatling principle where, unhindered by misfires, one round is fired from each of six revolving barrels in turn. The Gatling is the gun that Custer's troopers neglected to bring along to the Little Big Horn. The outcome of that battle might have been different had someone remembered to bring them. The Vulcan operates in a continuous rotary motion for which power could be supplied manually, electrically (24 volts), hydraulically, or by solid propellants. The gun feeds, rams, locks and fires, unlocks, extracts, and ejects.

Army Ordnance engineering and test facilities believe the Vulcan gun is highly reliable. Reports from recent coordination meetings of these agencies indicate that the stoppage rate is about one in 25,000 rounds. This ratio is based on more than a million rounds fired to date. An interesting fact is that the rate of fire was approximately 6,000 rounds per minute. High reliability can be expected at a reduced optimum rate for the ground role (2,000 to 3,000 rounds per minute).

Experience to date has proved that before barrel life and accuracy are affected, about 25,000 gun rounds can be fired through the six barrels (approximately 4,000 rounds per barrel).

Air Force accuracy specifications for Vulcan vary considerably from the requirements that would be established for the ground role. The Air Force found that with muzzles unrestrained, dispersion ran between 3.5 and 7 mils. With muzzles restrained, dispersion ran between 2 and 5 mils. During the fall of 1959 Aberdeen Proving Ground achieved a pattern which, when measured, revealed that dispersion could be improved considerably. This dispersion pattern was considered

satisfactory for the ground role. Again, at Fort Knox during July 1960, approximately the same pattern was achieved.

What appears to be an ammunition problem is really no difficulty at all. The stowage of 1,000 or 2,000 rounds of ammunition (basic load) is more than enough to perform the mission required of this weapon system.

As shown in our story, this weapon system will incorporate selected firing rates from one round up to 200 per minute, or even 3,000 rounds per minute. We can have a choice of controlled (through limiters) firing in bursts of 10, 25, 50 and 100 rounds at the high rate. It will be impossible for the gunner to fire more than the selected burst every three seconds. He cannot fire the next burst until he lets up on the firing button.

Disassembly and assembly take about 15 minutes. Under normal combat conditions, the gun should be serviced after 12,000 rounds.

For this weapon training requirements are considered minimal. Aside from the normal familiarization firing, no additional training is required. The knowledge of machine guns gained during a soldier's basic training could be used in firing this gun. Training in first-echelon maintenance would be necessary, but this could be included in the advanced training cycle. Since this weapon has proved extremely reliable, higher-echelon maintenance would be nominal.

By firepower we mean concentrated fire which is delivered in a minimum of time. The object, after ranging, is to get the required number of rounds on the way to the target in seconds: from .5 to not more than two seconds. Alfa 38's capability in this regard was demonstrated when our gunner saw the puff of smoke. He ranged with three rounds from his gun to get on target; then he fired a burst of 50. The impact of those 20mm rounds striking the target within one second had a tremendous effect. Sergeant Small selected 50 rounds because he could not identify his target. Had he identified it as a minor target he could have chosen any of the short bursts, from 10 to 25 rounds. Against a cargo truck or another such thin-skinned vehicle he could have used a burst of 10 rounds or a few single shots.

The 20mm Vulcan gun appears to meet the requirement for economy, since it is a proved weapon. It has demonstrated that it can engage and destroy soft targets, as well as light armored personnel carriers and fighting vehicles. It has proved that it can severely damage light and medium tanks. We need this capability of destroying and damaging these types of targets at the least cost. If we can use five rounds of 20mm to destroy a soft target, why use calibers of 90mm or 105mm? Caliber 20mm ammunition is cheaper and easier to handle and resupply.

The need for adequate weapons with which to equip mobile forces to fight a limited war is of pressing concern to today's planners. Alfa 38 could meet the requirements for strategic and battlefield employment. This weapon concept could be adapted to airdrops and water crossings.

In the future reconnaissance units will have to perform a wider variety of combat missions. They will have to traverse greatly extended areas in smaller-sized units. It would be unwise to predict that their scout sections will not have to fight. We do want them to fight if the means justifies the end. They should not have to rely solely on the support of the reconnaissance platoon or troop supporting fires to bail them out. More often than not, reconnaissance units have been so thinly spread out they could not provide supporting fires for the scout section. Alfa 38 will do the job when support fires are not at hand. This capability will more readily assure the safe return of valuable manpower, expensive equipment, and vital information. In fact, the caliber .50 machine gun has outgrown this role.

Consider the number of roles Alfa 38 could fulfill in the combined arms team of the combat branches. This concept affords automatic firepower, mobility, flexibility, and quick reaction time. Automatic fire delivered in this manner increases the effectiveness of the weapon system and consequently qualifies it for various missions, due to the use of multi-barrels. Here are some advantages of this system over the single-barrel weapon:

Single-barrel automatic guns cannot match the durability and reliability of the M61 20mm gun, nor its barrel life. Fire in single rounds or long or short bursts will equal or outdo the dispersion pattern of the single-barrel gun at any range.

By means of a simple hand crank the M61 can be fired manually at a rate varying from a single shot to 200 rounds per minute. This formidable rate should not affect dispersion or accuracy because 200 rounds are delivered by six barrels, each barrel firing about 33 per minute.

This compact six-barrel unit can withstand six times the effort of a conventional single-barrel gun, and perform with one-sixth the heat and barrel erosion. The advantages are obvious. In a six-round burst, all are first rounds from each barrel. In a 60-round burst, each barrel fires only 10 rounds, barely enough to warm it. With this weapon there is no problem, as with single-barrel automatics, of ever-widening dispersion caused by barrel heating. The Vulcan is not concerned with stoppages, which means a gun out of action for precious minutes. Any unfired round is extracted and ejected, and fire continues. Once he comes under the accurate fire of the Vulcan the enemy never gets a chance to catch his breath.

OPERATION

An errand of mercy that taught MATS and STRAC valuable lessons in emergency airlift operations

Lt. SAMUEL R. SAKS

MAY 25, 1961, marked the first anniversary of Operation Amigo, our airlift of personnel and equipment to relieve the earthquake-stricken people of Chile. The contrasts in the operation made it unlike any we had previously undertaken. Conceived on the spur of the moment, Amigo had the urgency of a true tactical operation, but the weapons were medicines, bandages and ambulances.

Operation Amigo airlifted U. S. soldiers to a country of friendly, humble, and grateful people. Nevertheless, this vast airlift included enough similarities to the unwanted, but always anticipated, "real thing" to afford us valuable lessons that in the future might mean the difference between success and failure. I do not mean that Amigo solved any haunting problems or difficulties that were always known to exist. Rather, its real value is the realization that many of the obstacles encountered had not been anticipated. Short of armed conflict, a better medium couldn't have been devised to uncover the difficulties involved in such an airlift.

From the disaster area, a strip of land almost a thousand miles long in southern Chile, news began trickling into Santiago during the night of 21 May 1960, and the flow increased during the following days. Reports in the form of frantic pleas, sometimes distorted, ranged anywhere from credible figures to fantastic exaggerations such as "5,000 dead," "50,000 homeless," and "property damage of $20 million."

The U. S. Ambassador to Chile, Walter Howe, immediately offered assistance. He informed the Secretary of State that the damage suffered was of major proportions and that the Chilean Government had requested relief from the United States. The initial request was for four field hospitals, blankets and tents for 15,000 persons, water purification equipment to accommodate 200,000, and sufficient medical supplies to provide emergency aid. The Chilean Government asked this help not only on the basis of actual casualty reports, but on anticipated epidemics of pneumonia and typhoid resulting from damaged sanitary facilities and the onset of winter.

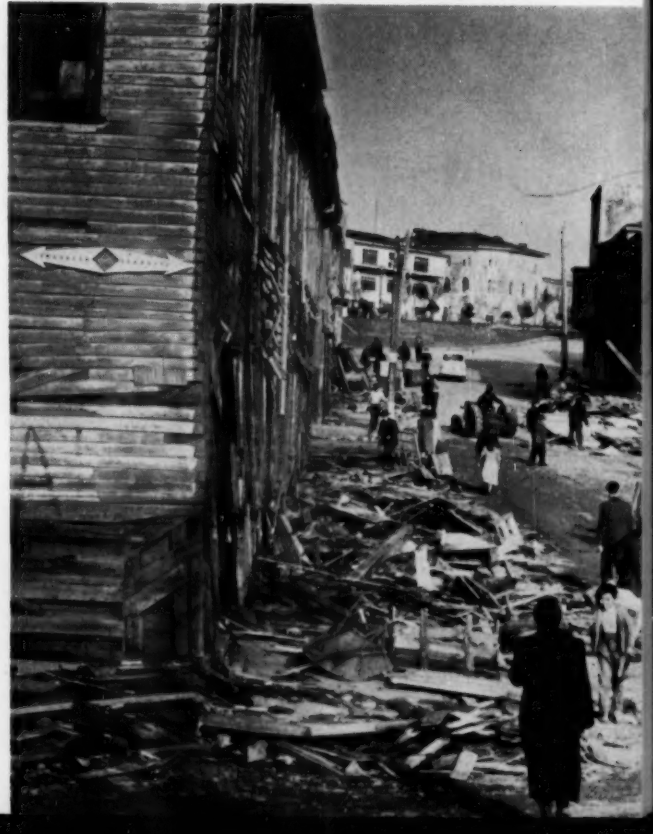
At 0200 on 25 May the Commander in Chief, Caribbean Command (CINCARIB), sent to Santiago a planeload of relief supplies accompanied by an 11-man disaster survey team. This team, composed of soldiers from the Army Medical Service, Corps of Engineers, Quartermaster Corps, and other technical services, was well equipped to evaluate the needs of the stricken people. Whether or not the estimates of the situation submitted by our survey team corroborated those emanating from the disaster area was of little consequence. The political implications were more formidable.

Political implications

The State Department hastened to avail itself of the opportunity. The International Cooperation Administration (ICA) immediately allocated $1.5 million, enough to airlift to Chile two of the four field hospitals with supporting units.

Late in the evening of 24 May, the Department of Defense was alerted to the possibility of the airlift. At 0830 on 25 May the Deputy Chief of Staff for Logistics requested the Office of the Surgeon General to report on the availability of units necessary for the operation. The 7th Field Hospital at Fort Belvoir and the 15th Field Hospital at Fort Bragg were determined to be most readily available. In addition, The Surgeon General arranged for the hospitals to be augmented with water purification units from the Corps of Engineers, laundry units from the Quartermaster

One of the hardest hit areas was Puerto Montt



Corps, and communications units from the Signal Corps. At 1500 that day the 7th and 15th, and supporting units selected by other technical services, were placed on standby alert and directed to check personnel and equipment.

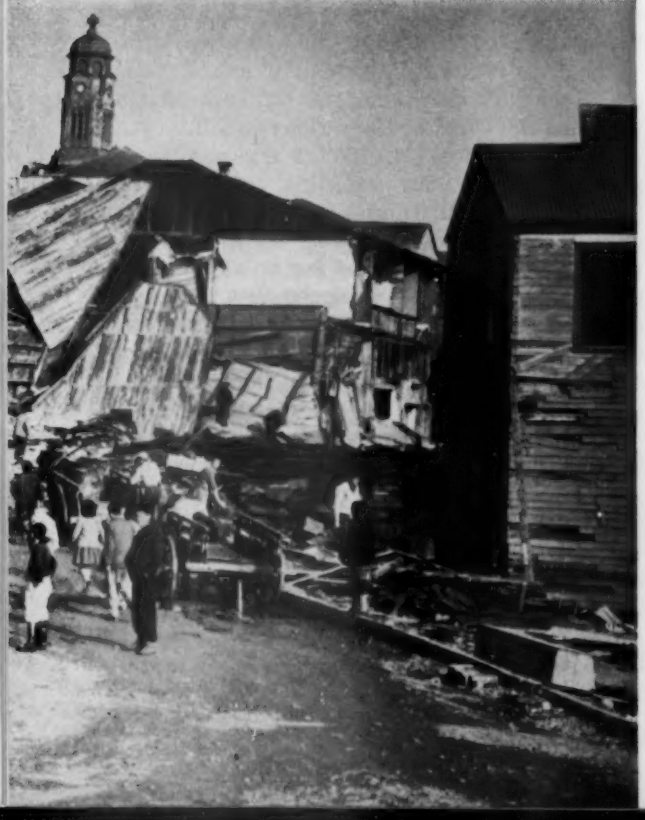
Now that the initial shock of the disaster had subsided, the vacuum in Santiago was beginning to fill. The State Department learned that other Latin American countries had begun flying supplies in to Chile. It would be only a matter of time before communists countries, seeing the opportunity to enhance their attempts to dominate Latin America, would begin their own airlift into Santiago. With no significant change forthcoming in the original reports of casualties, the State Department notified the Department of Defense to go ahead with the airlift, so at 1830 the units selected were ordered to prepare for overseas shipment.

Early reports of Amigo were quick to point out that the units were orderd to deploy before accurate information was available as to exactly what was needed in the stricken areas. As a result, too many medical personnel were sent to the area where the great need was for medical equipment and supplies. Reports further maintained that we did not meet the Chilean Government's urgent need for engineering equipment to clear away the mountains of rubble.

Two members of a Disaster Relief Survey team, flown to Santiago from the Canal Zone the day before Amigo airlift, confer with U. S. Ambassador Walter Howe. Members of the team are Col. Jobie J. Dixon and Maj. Irving H. Canfield.

AMIGO

where the 15th Field Hospital was set up



These are correct evaluations, and had it not been for the political implications involved, we might very well have waited a bit longer while our survey team had a chance to accurately assess the needs of the victims and recommend ways to best aid the Chilean Government. Remember that we are fighting a cold war, which often prohibits our taking the most rational course. Our objective here was to get the equipment to Chile that had been requested, and to get it there first. Though from an operational standpoint what was sent might not have been exactly what was needed, certainly it was required to bolster our prestige in Latin America.

Alerting the units

When the 15th Field Hospital had been placed on standby alert as of noon, 25 May, it was participating in an Army training test 22 miles from Fort Bragg. It was not until 1730 that this unit could be recalled to garrison to prepare for departure from Pope Air Force Base. The 7th Field Hospital began preliminary preparations early in the afternoon of 25 May. Both units had their organic equipment packed and were ready to begin loading on vehicles by 2000—many hours sooner than Strategic Army Corps (STRAC) operational plans actually specify.

Although both the 7th and 15th are STRAC outfits, they found themselves burdened with some

men who were ineligible for overseas shipment (not POR qualified). This necessitated drawing replacements from other units. Since only two field hospitals were involved, it was not too difficult to obtain the necessary replacements, and by the time of departure both were up to strength.

For mobilization purposes doctors and nurses are assigned to STRAC outfits, but normally they perform their duties at fixed installations only for training purposes. They actually serve with their units, usually on a rotation basis. When the 7th and 15th Field Hospitals were alerted for overseas shipment at approximately 1800 on 25 May, only the professional people and the administrative officers permanently assigned were immediately available. The units were compelled to apply to higher headquarters for additional officers, and the selections ultimately were made by the Office of the Surgeon General. The first logical sources of additional Medical Corps personnel were the station hospitals at Fort Bragg and Fort Belvoir. Ordinarily they would have been able to supply most of the doctors needed, but the anticipated requirements of the relief mission indicated a need to include a variety of specialists not normally assigned to a field hospital. Medical Corps personnel finally were called in from hospitals as distant as 200 miles from Bragg and Belvoir.

Many of the officers called in from other posts arrived ill-equipped for the move. Through no fault of their own many reported in class A uniform—some summer, some winter—and with little or no field gear. Unit field equipment had to be hurriedly issued and the stock was exhausted before all were able to obtain proper clothing for the airlift. Summer uniforms were common on the airlift into the Southern Hemisphere where winter was already setting in.

Lessons in force manning

As a result of recommendations by units participating in Amigo, and from general observations, the personnel problems encountered at the outset are now being eliminated. After-action reports of both field hospitals recommend that STRAC units be given high priority in selection of enlisted men. This means that men not physically qualified for overseas shipment would not be assigned to STRAC outfits, including soldiers whose immunizations could not be immediately brought up to date for shipment to *any* locality of the world. Those with less than 60 days to serve on active duty should be transferred out of STRAC units. If these steps are not feasible, then a roster should be kept up to date that lists personnel from other units who could replace people in these classes.

As for more expeditious and efficient methods of acquiring officers who normally are not physically present with the unit, four basic conclusions were drawn from reports and observations of the mission.

- Based on MOS and STRAC requirements, as soon as an officer is permanently assigned, his mobilization designation must be selected and approved by the chief of his branch or technical service.
- Units concerned should always know who has been assigned, and continually post changes so that its roster is kept up to date.
- The unit should be responsible for seeing that officers in this category are informed of their assignment. These officers should immediately be issued proper field equipment and be similarly immunized as those permanently assigned to the unit.
- Although the circumstances encountered during each individual mission will point to a desirability to alter the pre-established TOE and STRAC's operational plans, late changes in personnel should be avoided, in the interest of reducing delays and eliminating the additional burden on the unit from which they were taken. (In this instance, Medical Corps officers, but the problem concerns all branches.)

Role of MATS

At midnight on 26 May, only fifteen and a half hours after the Office of the Surgeon General had been notified of the tentative plans for sending relief to Chile, the first elements of the 7th Field Hospital were on their way from Fort Belvoir to Andrews AFB to begin the 5,000-mile journey. At the same time, all equipment of the 15th Field Hospital was on the loading ramp at Pope AFB.

The Chief of Staff, U. S. Air Force, in an operational message dispatched at 2215 on 25 May, informed the Chief of Operations of Military Air Transport Service (MATS) of the mission. He included instructions regarding the number of persons to be airlifted and the approximate time units would be ready to load at Andrews and Pope. Normally, joint plans for an airlift of this type call for personnel assigned to a unit to accompany its organic equipment, rather than to fly separately. This insures that men of the unit either load their own equipment or supervise its loading, and avoids their separation. In this instance, however, equipment was airlifted in C-124 Globemasters, and the men were carried separately in C-118 passenger planes.

After considering more up-to-date reports from the disaster area, on 26 May the Joint Chiefs of Staff approved the shipment of two helicopter ambulance units. They selected the 57th Helicopter Ambulance Detachment at Fort Meade and the 56th Helicopter Ambulance Detachment at Fort Bragg. Each unit consisted of five Bell HU-

The number of refugees that had to be evacuated during Operation Amigo brought forth a recommendation that future missions include a unit specifically designated for the task.

Chilean nurses examine an Army HU-1A flying ambulance at Valdivia, Chile, the scene of some of the worst disaster damage.

Ambulances of the 15th Field Hospital being loaded for airlift to Chile. Loading operations were confused and controversy developed.

1A (Iroquois) turbine-powered helicopters, and they began loading on C-124s on 27 May.

The first MATS plane for Chile took off from Pope at 0500 on 26 May; the second left Andrews 40 minutes later. Their departure marked the beginning of the most formidable military airlift since the Lebanon crisis in 1958. The airstream out of CONUS continued until 1100 on 27 May, when the last of these giants left Andrews AFB. In all, it took 59 planes to airlift the two field hospitals, the two helicopter detachments, and the support units.

The first planes carrying segments of the 7th and 15th Field Hospitals arrived at Santiago early in the afternoon of 27 May. By the time the last plane reached Santiago, on 30 May, our MAAG there, in cooperation with the Chilean Minister of the Interior, already had selected sites for our field hospitals in the disaster area. Although word had reached Santiago that the original request for field hospitals and additional doctors and nurses was greatly exaggerated, we decided to proceed on the premise that epidemics could still arise. Also, we had to consider the potentiality of floods inundating the stricken area and multiplying the number of casualties.

With as little delay as possible, the 15th Field Hospital and both helicopter detachments were flown from Santiago in C-124s to the town of Puerto Montt. The 7th went by rail and truck to the otherwise inaccessible city of Valdivia, which delayed their arrival by about 48 hours. To support the 7th, helicopters of the 57th Medical Ambulance Detachment then flew to Valdivia from Puerto Montt.

Problems in loading

Most of the deficiencies encountered during the actual movement, as indicated in after-action reports of the four units involved, are easily corrected. Most frequently mentioned in reports of the mission, including those compiled by the Air Force, was lack of coordination between Army and Air Force in loading procedures at airfields in CONUS.

The after-action report of the 15th FH pointed out that sometimes MATS planes arrived already partially loaded, thus requiring last-minute changes in cargo plans. In its own report on Operation Amigo the Air Force countered that it had not been notified in advance concerning weight and cube loads of the equipment to be moved. This caused delay while gear had to be weighed and measured at the loading ramp.

While both Army and Air Force have operational plans for airlifts, based on information exchanged regarding size of loads and capacity of aircraft, such plans never are adequate for meeting the requirements and peculiarities of each individual mission. Reliance must be placed on the effective use of liaison teams, which just prior to and during an airlift operation work together at the point of loading.

Personnel of the Army's liaison team should know the weight of each piece of equipment to be loaded, the number of men that must accompany it, and all last-minute changes in pre-established plans. The Air Force's team should be fully acquainted with the types of aircraft to be used and the maximum weights and cube loads they can handle.

Such teams would have alleviated the difficulty the 15th Field Hospital experienced when it found additional supplies being loaded onto aircraft along with its organic equipment. The 15th's equipment had to be distributed over more aircraft than anticipated, and the important function of unloading later on a priority basis went by the board. Liaison teams, having been informed of such additions, would have seen that other equipment was placed in separate aircraft or in a manner that would not have disrupted the unit's loading plan. After-action reports by the units which experienced difficulty through lack of coordination have already recommended more extensive use of liaison teams.

Sending personnel in separate aircraft and in advance of equipment further complicated loading. It impaired proper supervision and made it more difficult to locate equipment quickly at unloading points in Santiago and Puerto Montt. Again, this indicates the necessity of following pre-established operational plans if complications are to be eliminated.

One widely voiced complaint concerned aircraft arriving out of the sequence in which they were loaded. This will have to be accepted as almost inevitable. Unless we eliminate rest stops for Air Force crews, such as when aircraft were aground at Lima and Santiago for as long as 15 hours, little can be done. The Air Force has already implemented a dual-crew plan for essential MATS flights which will eliminate the need for long lay-overs. However, since we cannot control the weather, anticipate mechanical failures, or have inviolate rights to airfields throughout the world, we can never be sure that the first plane to take off will be the first to arrive.

Going into action

The obstacles confronted in setting up the two field hospitals were solely the result of the logistical problems we have mentioned. Both units were given full cooperation by the Chilean people, who always came up with what was needed. Though many Chileans were homeless, all worked along with our soldiers, never resting until the hospitals were erected.

Although our hospital staffs did a magnificent job in assisting the Chilean authorities and in providing temporary shelter for some refugees, the two hospitals were not needed in the role originally expected of them. Nevertheless, every soldier acted as a personal ambassador of American good will. Things may have been quiet in the operating rooms, but the good impression left on our friends in Chile resounded throughout Latin America.

A report by the Chief Surgeon of Headquarters Caribbean Command recommended that, because of the large number of refugees in the stricken area, a TOE unit be devised to provide shelter for them without burdening units designed for other purposes. While the hospitals were able to offer their tents as shelters, it was only because the tents were not otherwise needed. Implementation of that recommendation undoubtedly would eliminate such a problem in a similar operation.

Army aircraft indispensable

If Operation Amigo had its heroes, they all bore the same name: Iroquois (officially, the HU-1A helicopter ambulance). The two helicopter units rendered invaluable service to the Chilean Government in its attempt to reach all disaster victims. The choppers of the 56th and 57th Helicopter Ambulance Units carried food and clothing to the stricken areas and evacuated patients and the homeless.

Flying in the earthquake area proved extremely perilous. The terrain was mountainous, rainfall was almost constant, with visibility often limited to one-half mile. Ignoring these adverse conditions, the two units logged more than 300 flying hours, covered 28,000 miles, and evacuated more than 900 persons. They transported Chilean doctors to otherwise inaccessible areas where they administered thousands of immunizations which may have made the difference in averting an epidemic. Amigo allowed the new turbine-powered Bell HU-1A to prove itself under the most severe conditions. This aircraft's performance was superior.

The operation provided only one instance of a helicopter's limitations. That was when the units were to re-fuel in Santiago. Through lack of coordination, they were unable to obtain the proper fuel and their operations were seriously hampered for a time. Reports submitted by the helicopter units to The Surgeon General recommended that operational plans be amended so as to permit each unit to carry a five-day supply, unless they could be assured of stocks at their destination.

Mission accomplished

Operation Amigo ended almost as abruptly as it had begun. On 2 June, only one day after both field hospitals were operational, it became apparent that their mission could be turned over to Chilean doctors and nurses.

Phasing-out of personnel of the 7th and 15th Field Hospitals began on 4 June, when it became almost certain that the possibility of floods or epidemics had disappeared. By 8 June, only enough remained to instruct the Chilean authorities in proper use of equipment.

However, as late as 24 June, limited welfare operations were still being carried out in Valdivia. Five large general-purpose tents, 100 cots, and 10 stoves were given to city officials to be used in temporarily housing disaster victims.

Helicopter operations ended on 20 June. These units phased out over the next two days, the last helicopter arriving in CONUS on 25 June.

While personnel of the two hospital units were no longer required, it was anticipated that their equipment would be needed by the Chileans for at least 90 days more. The question then arose as to whether to leave intact, on a loan basis, the equipment of the hospitals and support units, or to make of it an outright gift. After considering the cost of returning the equipment to CONUS, plus the expense of re-equipping and rehabilitating the units, the Department of State and the Department of Defense agreed that an outright gift to the people of Chile would be the best course. On 24 June service personnel remaining in the disaster area and Ambassador Howe were notified simultaneously of the decision to transfer the hospital equipment to the Chilean Government.

On 11 July, a major of the Chilean Army signed for the property in behalf of a grateful people. The Department of the Army was reimbursed for its equipment by the Department of State through funds of the U. S. Mutual Security Program. The worth of the hospitals represented $850,000 of the $4.5 million the whole operation cost.

On 20 July, 57 days after the first troops left CONUS for Chile, the last officer and seven enlisted men touched down at Pope AFB, thus ending Operation Amigo.

A MYRIAD of reports now being studied in Washington include many additional problems. They were not discussed here because they were peculiar either to this operation or to one particular unit, and not of general interest or application.

The relatively small problems, obstacles and difficulties we have mentioned did not detract from the over-all success of the mission. Its success can be attributed in part to constant study and analysis of similar operations that preceded it. Much of the success of a similar airlift we may have to undertake in the future surely will be attributed to what we learned during Operation Amigo.

As furtive as the Gray Ghost himself, these Sneaky Petes strike faster than lightning

SPECIAL

CHARLES A. DODSON

HE'S something new as the next wonder drug and yet as old as Natty Bumppo—the soldier-outdoorsman who can live and fight anywhere —the U. S. Army Special Forces soldier of the New Frontier.

Only hours ago you may have seen him on the golf course at Fort Bragg, skiing in Bavaria or bowling a few frames on Okinawa; but now he stands in the door of a troop transport aircraft, waiting to plummet into an alien country to assume the role of teacher and armed ambassador to a free nation plagued by communist subversion.

There's also guerrilla activity in our nation's Capital—but it's confined to feverish work under fluorescent lights in the Pentagon where some of the best brains in the Army are working out problems created by the decision to expand this type of warfare potential.

Here is the hub of the expansion, but it's among the sand hills and long-leaf pines at Fort Bragg, that soldiers of the Special Forces are stepping up the training which takes over where commando, ranger and airborne lessons leave off. The Army's Special Warfare Center at Bragg is commanded by Brigadier General William P. Yarborough, recently promoted to that grade.

Special Forces groups are stationed at Fort Bragg, in Germany and on Okinawa, but security cloaks the identity of officers and men. At every point in the Center, one sees a poster depicting Groucho Marx and bearing the legend: "Say the Secret Word—and Get 20 Years."

Nor is Bragg the only point where men are learning the arts that turned John Singleton Mosby and Chief Crazy Horse into TV legends. A lingerie salesman in downtown New York may be a well-conditioned Reserve guerrilla fighter while a devout young Mormon elder may belong to an elite Special Forces unit of the Utah National Guard.

It takes a trip to Fort Bragg, however, to change all pre-conceived ideas on the Special Forces. If you're looking for a bunch of wild, undisciplined irregulars who go helling around the countryside blowing bridges and busting up beer joints, you're in for a distinct disappointment. Three "Ms" loom large in the Special Forces concept: "Maturity," "Motivation" and "Military."

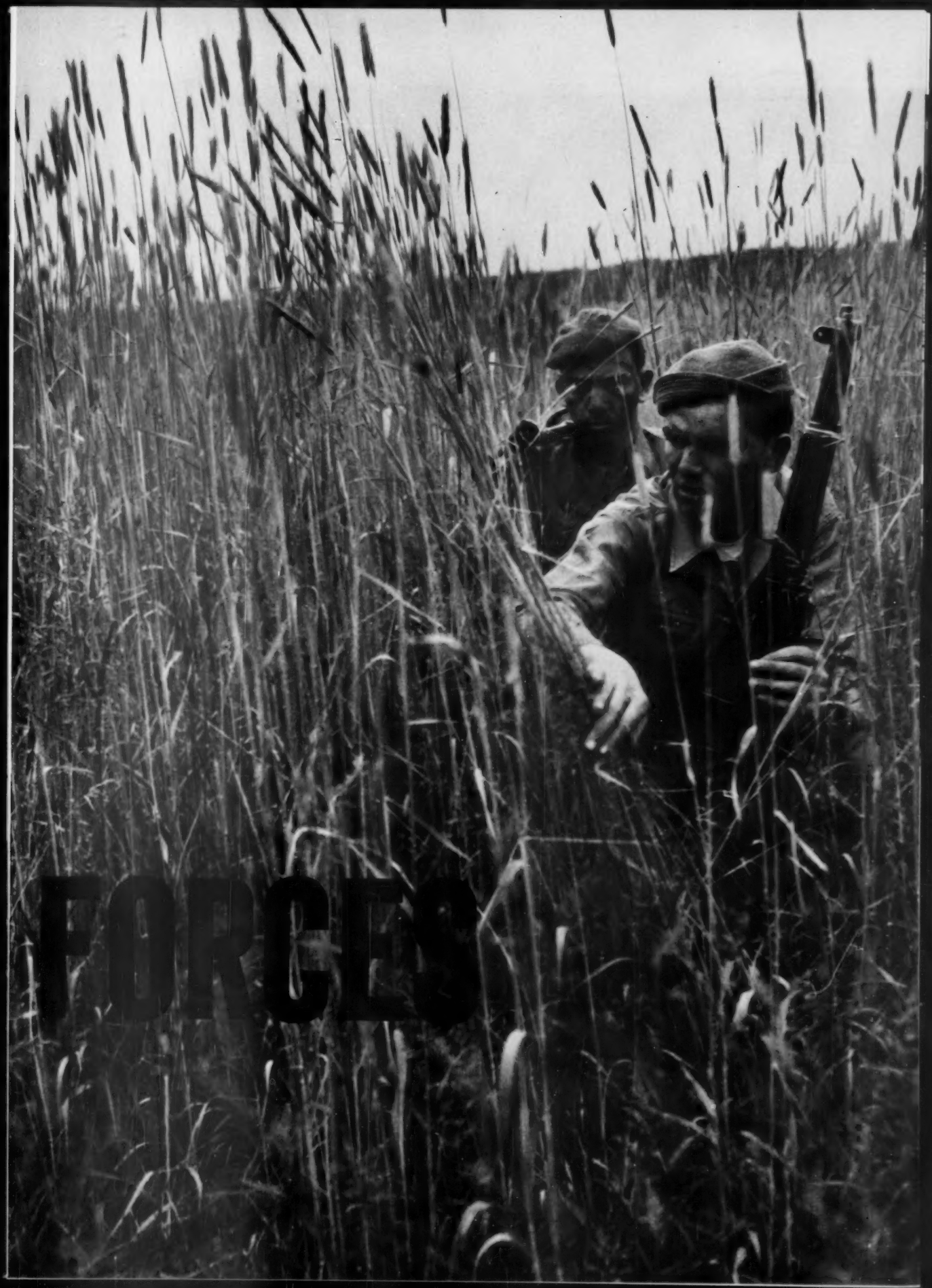
Special Forces want, and insist upon having, mature officers and men. (There's not even a TOE slot for a second lieutenant.) The maturity they seek is in judgment, leadership and personal conduct. "We don't want heroes of bayonet charges," says a spokesman, "but rather men who can use their heads and come up with the smart solution to any situation."

At every turn you'll be running into another M-word—motivation. One officer defines the main motivation to Special Forces service as that of "an American citizen interested in doing something for his country." Another simply says: "Here is a challenge. A man naturally gravitates to the best." "Above all," says another, "a man must be sold on Special Forces and not upon individual prestige, glamor or personal benefits." In effect, Special Forces paraphrase President Kennedy's inaugural admonition to "ask not what your country can do for you—ask what you can do for your country."

Special Forces soldiers, officers and men, are part of a military organization and wouldn't have it any other way. They are subject to the same disciplinary code as other soldiers, but like to think they behave in a much more mature manner than is normal. "Delinquency reports, AWOL and VD rates are practically nil," insists a spokesman. He cited just one case of AWOL during his tour with a Special Forces unit in Germany. "The other men felt that this character had let them down," he said. "They took care of him," he added significantly.

Emphasizing that Special Forces is a strictly military outfit, an officer reiterated to me that "we are an extension of the conventional arm and only exist to support the conventional effort. We are not an outfit of 'Popskis' and the word 'unconventional' as applied to us was an unfortunate exercise of semantics. Unconventional applies only to our methods of warfare and not to us as military individuals."

(There is some question as to the use of "unconventional" when applied to guerrilla warfare—


FORCES

for at what point does the unconventional become conventional? It is certain that except for Korea, and even there to some extent, most military operations since the end of World War II have been within the realm of so-called unconventional warfare.)

Spend some time with a Special Forces unit and you get somewhat the same impression derived from time spent in the training camp of a professional football team. Certainly, there are bruisers and superb physical specimens—but others, by comparison, seem so small and frail that you are forced to wonder how they got there! But, like the pro footballers, they have such a drive to excel that frequently they are the leaders through sheer will-power and force of personality.

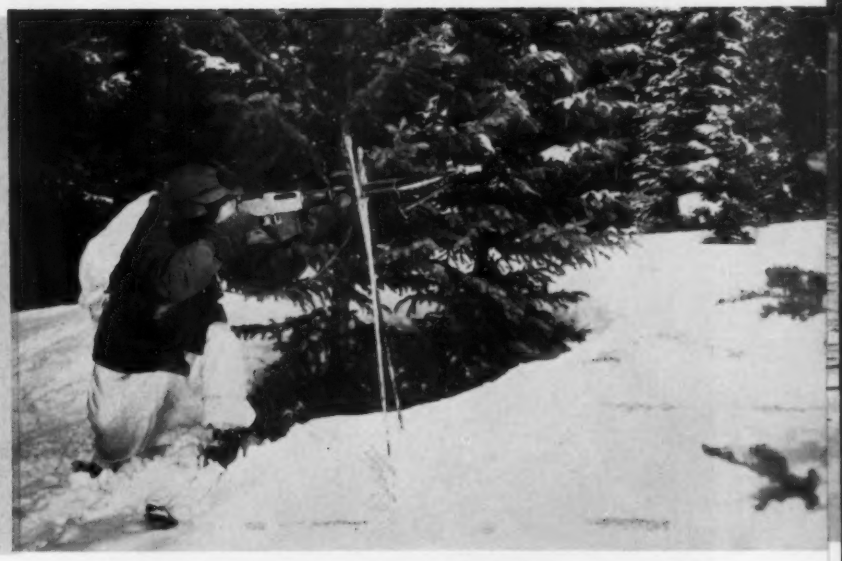
If only one word could be used to describe the officers and men of Special Forces, it would have to be "dedicated." Although they are currently sitting on top of the world—what with their newly gained priorities—they aren't forgetting the lean years when Special Forces was considered the graveyard of an officer's career. It is a fact that capable officers had been advised to transfer because service with the Forces was hurting their careers. And there's evidence that Special Forces may have had at least one "Billy Mitchell."

"With the present recognition, we feel vindicated for our loyalty and efforts in behalf of Special Forces," said an officer. "Now we would like Special Forces to become a career branch. You just don't make 'em overnight."

He may very well be right, for while an SF man

DEAR GENE TUNNEY:

Knowing your interest in physical fitness, you'll be pleased to learn that not all Americans are soft—there's a group of U. S. soldiers known as the Special Forces who are definitely more at home in the outdoors and at strenuous sports than in drawing rooms and at bridge tables. They deal in parachute jumping, hunting, fishing, judo, karate, knife-throwing and bow-hunting. You might enjoy meeting them —some of them read Shakespeare, too.



must possess certain talents and physical attributes, the real secret lies in his training—months and months of it before an officer or enlisted man bears the big "3" as a prefix or suffix to his MOS number. The "3" has a special significance. It means that an officer or enlisted man has not only been thoroughly trained in his own MOS, but has also been cross-trained in at least two other skills. Special Forces gets around the drudgery of repetitious training for there's always something new to learn and put into practice. There's so *much* these soldiers must know that there's no time for boredom.

A prime example is the Special Forces medic. Before he even begins his 12 weeks of Special Forces training, he must have 35 weeks of training in his primary skill—first at Brooke Army Medical Center, Fort Sam Houston, Texas, and later much practical work at Fort Bragg's Womack Army Hospital where he becomes so skilled that he's the equal of a regimental surgeon. In the field—that is, dropped into a remote area and cut off from all outside help—he is able to perform surgery such as an appendectomy, treat gunshot wounds, compound fractures and the thousand and one ills the flesh is heir to—especially in the tropics. His kit is much more elaborate than the regular enlisted medic's and he must also be able to teach the guerrilla medics of the host country. Add to that several additional skills plus, perhaps, fluency in a couple of foreign languages and you have a man who is considerably more than just a pill-pusher.

Then there's the regular Special Forces team man. He can fix a fricassee of anything from armadillo to zebra and turn, at a moment's notice, from mayhem to midwifery. These are only some of his more unusual skills. Each team, or detachment, consists of two officers and ten enlisted men with two men each trained in demolitions, communications, weapons, intelligence and operations, and as medics. Each is trained in his own MOS and then cross-trained in all the others. Add training in jungle and mountain warfare, underwater demolitions, psychological warfare, parachute qualification and language training and it's readily apparent that SF training goes somewhat beyond eight weeks of basic.

The Special Forces is not a separate branch but wears the crossed muskets of the Queen of Battles. They have no military occupation specialties not ordinarily found in an infantry unit, but it is a must that they master every infantry skill.

The weapons of the world come to these men's hands with the easy familiarity of Zippo and Lucky. Knives, rifles, shotguns, pistols, burpguns and even such ancient weapons as the spear and bow and arrow come within their capability to fire, maintain and manufacture. Nor is the bare hand neglected as a weapon. All know and can teach judo and most have more than a passing familiarity with its deadly extension, karate. There's a cozy little game they play for pastime in the "Gladiator Pit" at Bragg. It's a six-foot-deep circular pit about 50 feet in diameter. Some 60 men enter at one time and it's no-holds-barred until the one "best man" remains in the pit! It's called "an excellent physical conditioner."

With voice transmissions ruled out by distances, communications specialists must rely on continuous wave radio operation, using the International Morse Code. They must be able to receive and transmit at the rate of 18 words per minute, perform maintenance up to third echelon and even build a working set out of parts at hand. Other team members must be able to work at least five WPM in code and know how to set up and

operate a radio. Workhorse of the Special Forces is still the dependable Angry Nine, officially AN/GRC-9.

Familiarity hardly breeds contempt among the SF demolitions men who have a hearty respect for the elaborate explosives and equipment with which they jump from airplanes. Just what they do have is shrouded in secrecy but it can be said that it goes far beyond that of the regular Army unit. Too, they can combine certain ordinary materials and get quite a bang out of them in a pinch. "We are armed with a vast knowledge of improvisation," said an SF officer.

It might be noted here that men of the detachments carry a mountaineer's rucksack which holds much more than the Army full-field pack.

Special Forces are now receiving equipment "we had previously only hoped for." One example is a new 35mm camera which will be issued to each 12-man detachment for reconnaissance and intelligence work.

In the event that a country requests the help of a Special Forces detachment, just what will the men be doing after they have parachuted into the area? The "how" is secret but the primary mission is to teach counterguerrilla forces all the multiple skills these highly trained men have absorbed. These include tactics of unconventional warfare, demolitions, mountain climbing, jungle warfare techniques, basic medical skills, handling of a vast variety of weapons and countless other tricks of their trade.

Nor are these men likely to jump willy-nilly into an entirely strange country. Close watch is kept upon potential global trouble spots and the teams receive "area orientation" on such countries. This includes indoctrination in terrain features (the Army Map Service steps in to give valuable aid here), past and present political history, customs, prevalent diseases and local foods, to name but a few.

Such men would be on the same status as Military Assistance Advisory Groups and would fight only as a matter of self-defense.

Rank, particularly for enlisted men, is good in the Special Forces—they claim better than in any other part of the Army or other services. But here RHIP—to work. Officers strip to the waist and work right along with enlisted men and "senior master sergeants shoulder loads that would make the average private howl for his Congressman." But this seems to tighten, rather than lower, discipline. Perhaps in no other service is the adage that loyalty extends both ways so evident—offi-

DEAR HANSON BALDWIN:

The good, gray New York Times *sometimes gives me the impression that you have the idea that the modern American fighting man couldn't hold a tent peg for his great-grandpappy who ran like a scared rabbit at Shiloh or just plain skedaddled home after Atlanta and to heck with Jeff Davis and all that stuff.*

What you need, Mr. Baldwin, sir, is some troop duty—with the Army's Special Forces. These guys are tough and they're skilled in simple electronics, demolitions and map-reading. As an old Navy hand, wouldn't you like to go boating with 'em some black night?

Also, Mr. Baldwin, these guys skedaddle forward—towards the enemy.

cers swear by their men and the men are emphatic in their belief that they have the finest group of officers in any army.

"It has to be this way," says an SF officer. "We have to give men their tasks and let them perform with no over-the-shoulder supervision. When they go on a mission, they'll be on their own, perhaps thousands of miles from home; and they must be able to assume responsibility as representatives of the United States; be able to teach, lead and get the job done." Here, again, the "maturity" angle comes in. When a man "goes out the door" to land in a foreign country, he's there for the duration. There's no R&R (rest and recuperation) and he must live in a strange element, among strange people and yet have the mental stability, coupled with physical stamina, to see his mission through to the finish.

There are no age limits for Special Forces except as they apply to the Army as a whole. So long as a man can cut the mustard he can stay with it. Although the average age of SF men is considerably above that in the average combat unit, a man must have a "picket fence" on his physical profile. An exception is that he may have a "2" on his eyes.

The Special Forces man must love the outdoors and be able to live by improvisation. He must be interested in people and able to accept other people's moral standards without lowering his own. No matter what his rank, he must be trained to the extent of a staff officer; for that, in effect, is what he'd be in a host country where he may work.

As if their rugged training weren't enough, a "great many" Special Forces men are taking any number of courses to bring up their already high educational levels. The average for officers is a bachelor's degree and a high school diploma for enlisted men. "For obvious reasons, the Special Forces NCO is much better informed on current events," says a Center officer.

The Center's 4,000-volume library, not counting the extensive file of pamphlets, reflects the profession of its users. A cross-section of books found there reveals such titles as: *A Handbook of the*

Foreign Press, Cultures and Societies of Africa, The Psychology of Rumor, the works of Lin Yu-tang, *Magic and Religion,* and innumerable travel guides. Several copies of the Bible look well-read.

Just what type officer and enlisted man does Special Forces want and how are they procured? Army Regulations 601-245, 611-7 and 611-62 and Circular 614-5 cover the policy which, in general, is this:

Officers should be at least senior first lieutenants with troop leadership experience and be jump-qualified or willing to become so. Volunteers are preferred but officers with previous SF experience or airborne qualifications may be ordered to Special Forces duty. A high standard of physical fitness is required.

Sergeant First Class (E-7) Herman J. Kennedy, 7th Special Forces Group reenlistment noncommissioned officer, says "we need good men badly." The emphasis is on the "good" but he's not trying to frighten prospects away—as proved by the necessities of war, many men have potentials of which they themselves are unaware. Here are the enlisted skills needed in the detachments:

051, Intermediate Speed Radio Operator (E-5&6); 112, Heavy Weapons Infantryman (E-7); 113, Infantry Operations and Intelligence Specialist (E-7&8); 121, Combat Engineer (E-5&6); 115, Infantry Senior Sergeant (E-9); and 911, Medical Specialist (E-6&7).

Headquarters & Headquarters Company is authorized a wide variety of technical and support type MOSs ranging from grades E-5 through E-8. Included are communications specialists, radio repairmen, radio-teletype operators, cryptographers, parachute riggers, clerks and supply specialists.

Nor does lack of one of these MOSs preclude a man from joining the Special Forces. A man who wants to join the SF may be accepted for retraining and subsequent award of an MOS needed by a group. Such retraining could result in loss of proficiency pay and for that reason the man must voluntarily waive such pay before he's accepted. However, although he might lose pro pay in the old MOS, he can, after becoming qualified in his new SF MOS, be administered the evaluation test during a regularly scheduled testing period and again qualify for pro pay. All positions in Special Forces call for qualified parachutists on jump status and this brings an additional $55 per month.

Officers must be able to be cleared through top secret and enlisted men through secret. Interim clearances are now being given.

Some requirements for Special Forces have lately been eased. A man may now have only four months prior service where formerly he was required to have a year. He now may have only 18 months to serve where formerly the time was set at 33 months. A Pentagon official said that this easing would allow Special Forces to "draw from a broader base" of personnel. Emphasis has been placed upon securing college-trained men who already have a language capability.

Also located at Fort Bragg, the Special Warfare School gives heavy support in the training of Special Forces soldiers. Under the direction of Lieutenant Colonel Thomas P. Iuliucci, the School teaches psywar, unconventional warfare and counterguerrilla operations.

"Also," says Colonel Iuliucci, "the foreign student is a very important phase of our operations." The School has just completed the first session of counterguerrilla warfare and 95 per cent of the students were from nine foreign countries. Nineteen countries are represented in the present session and the School is currently geared for four counterguerrilla classes per year. Foreign students attend from one to three courses at the school and some get permission from their own countries to become jump qualified while in the United States. Training of foreign students is funded through the Military Assistance Program.

The Director of Instruction says that in the final week of school, foreign students go into the field and "get their hands dirty—a new experience for some of them." The students, foreign and American, intermingle and close friendships are formed. Each foreign student is assigned a sponsor who takes pains to see that his charge gets a look at the American way of life. They are taken bowling, to PTA meetings, to the State Capitol at Raleigh, to civic clubs functions, family dinners, churches, schools, tobacco farms and auctions. "Drug stores," says Colonel Iuliucci, "seem to fascinate most of them."

"Unpleasant incidents," according to the Colonel, "are few and far between. They are a most cooperative group of men."

While the Special Forces men are vastly pleased with their newly expanded role, they are treading softly in demanding any special consideration. There is, however, a touch of understandable bitterness in their realization that some who formerly turned a cold shoulder now call up to ask what they can do for the revitalized outfit.

The Special Forces aren't pushing for it at this time, but there seems to be a wistful wish that they'd be allowed to wear the distinctive green beret they consider to be their trademark. Most of them seem to have one ready for the day when the green beret gets the green light.

There's a refreshing vitality about these men with a mission—a zeal and enthusiasm which borders on the fanatic. Nudge any officer and he will hold forth at length with all the missionary

DEAR ABBE:

Mamma taught me to be a good, plain American cook but the man I married travelled extensively before we were wed and he is continually asking me to prepare outlandish dishes that I never heard of and can't even find in Betty Crocker's Cookbook. Please help me.

DESPERATE

DEAR DESPERATE:

All is not lost. You should contact the Commanding Officer of the nearest U. S. Army Special Forces unit. These men have really been taught to live off the land and can cook anything that flies, climbs, crawls or walks—from Aardvark Mandarin to Canine Zamboanga. You'll be able to keep your globe-trotter at home and turn out some real conversation piece canapes at your next cocktail soiree.

ABBE

eloquence of a zealot. As one officer put it: "We sacrificed our careers for an ideal. How did we know that this would last and become what it is today?"

Among the men of Special Forces, an extremely high percentage are married. Although, except for the extent of their training, they don't consider themselves to be too much out of the ordinary, they do consider their wives to be. "What with our comings and goings and never knowing what to expect of us, they are a pretty special kind of women. They have to be to put up with us," said a soldier.

The Regular Army Special Forces are backed up by National Guard and Reserve units scattered from coast to coast in the United States. These units are making rapid progress in becoming qualified SF men—frequently with considerable effort and sacrifice of time away from their families, livelihood or studies. Somewhat typical is Captain Phil Davis of the Alabama National Guard who somehow finds time from his veterinary studies at Auburn to be a plans and training officer (and at the same time endure bad jokes about having "a hoss doctor around in case somebody gets hurt").

Alabama being closest to Fort Bragg, I looked into the situation with the Alabama Special Forces—now just two years old. There's also a New Frontier look about the State Capitol at

Montgomery with youngish Governor John M. Patterson giving full backing to 44-year-old Major General Henry V. Graham, the jumping Adjutant General who served with distinction in World War II and the Korean War. A general-on-the-go seven days a week, Graham makes his regular jumps with the Special Forces and keeps in close contact with his Special Forces commanders, senior of whom is Colonel Henry H. Cobb, Jr., a Birmingham insurance executive and 4th Infantry Division veteran who wears the Distinguished Service Cross and Purple Heart with two clusters.

I went into the field with Lieutenant Colonel Lua R. Blankenship's teams on an exercise which started at 0200 of a Saturday morning and wasn't concluded until after darkness on Sunday. The exercise included a jump at Fort Benning from C-119s of the 78th Troop Carrier Squadron of the Air Force Reserve stationed at Mobile. The men made a near-perfect jump, with no injuries and no reserve 'chutes being opened, and then headed back to Alabama and the Coosa Wildlife Management Area, a 150-square-mile piece of terrain which ranges from swampland and cane-brakes to sheer granite cliffs.

These men—clerks, farmers, professional men and mechanics—took their long weekend in stride—including the baptismal downpour which hit the area about church-time on Sunday morning. Patrols went out on schedule and meals were prepared without benefit of issue Army mess equipment—they've developed their own food-service setup and the meals would make a gourmet drool. The woods, streams, lakes and countryside furnish the food: barbecued pig, chickens, squirrels, rabbits and fresh-caught fish form the diet these outdoorsmen dote upon.

Colonel Blankenship and his men have set up an "indigenous" intelligence and supply network in the area with friendly storekeepers and farmers taking their roles seriously and with avid interest.

Blankenship, incidentally, is an expert fisherman who knows what he's about in the wilds—he holds both a Bachelor's degree in forest management and a Master's in wildlife management from Auburn University.

There's a certain something special about all Special Forces men—Regular, National Guard or Reserve—that sets them apart, but the most incredible personality I encountered on this assignment is a 23-year-old throwback to Lewis Wetzel, Daniel Boone, Kit Carson and Jim Bridger:

Sergeant Hugh C. Coger works as service manager for Goodyear in Alexander City, Alabama, for five days a week to support his wife and daughter. But many nights and weekends find him in the woods armed only with an assortment of pistols and fishing gear. Born an only child some 20 miles back in a remote area along the Tallapoosa River, Coger says he had no playmates and took to the woods and streams almost from infancy.

With a caliber .22 pistol he shoots crows on the wing and hits squirrels in the head. Another favorite pastime is to arm himself with an air pistol, lie in a ditch and call quail up to his hiding place. When a quail peers over the ditch, he pops its head off. Abandoning side arms, he sneaks up on a squirrel's nest and knifes the occupant. (In this he admits he isn't infallible; sometimes he mistakes a 'coon's nest for that of a squirrel. "Stab a big boar 'coon in the leg and he can give you quite a tussle up there in a tree," he grins. His hands show the marks of such "tussles.")

Sergeant Coger, who at sixteen took to the woods and lived off the land for a year and a half, is not an inarticulate woodsman. He's passing on his lore to both officers and men who have the greatest respect for his ability. As one officer put it: "Anyone else and we might be skeptical. With Coger all things seem believable and possible."

Sergeant Coger, who finds Special Forces both an outlet and an opportunity to serve his country in time of need, is not a despoiler of Nature but an ardent conservationist. His philosophy about the woods is simple: "You take care of them and they'll take care of you."

There's an unmistakable aura of the outdoorsman about the Special Forces man. If the breed who became mountain men, frontier scouts and woodsmen was in danger of extinction it is being preserved here. Although these men disclaim any pretensions to glamor, the glamor is there—just ask the men who are wishing that they were 20, or even 15, years younger.

With Special Forces, there's a back-to-Nature and back-to-Americanism movement that's gaining momentum. Youngsters who have been exposed to TV for half their lives are abandoning their soft seats in front of the 21-inch box for reality and learning patriotism and the pleasures of outdoor living from that hard core of men who believe in their country and will never doubt its destiny.

Writing in *Orbis,* a quarterly journal of world affairs published by the Foreign Policy Research Institute of the University of Pennsylvania, Slavko N. Bjelajac had this to say: "The West, if it purposely takes up the weapons of unconventional warfare and integrates them fully into the arsenal of the Free World, will find it less difficult to convince the Soviets that it can prevent them from starting a war or from obtaining even a limited objective."

With Special Forces, the U. S. Army is making a start.

Tailor Your Own

A grass roots approach to organization for battle

Colonel THEODORE C. MATAXIS

DURING the past three years we have seen only one major change in the Pentomic infantry. This dealt mainly with the division's artillery elements. After much study and field-testing, we conceded that our organization of the Pentomic infantry division's artillery was not feasible. It did not allow for rapid response and massing of fires so vital in close support of infantry.

Even in the infantry elements of the battle group, only minor changes have been made. The shift from four rifle companies of four rifle platoons each, to five companies of three platoons each, actually resulted in a net loss to the battle group of one infantry platoon. This seems a rather Alice-in-Wonderland approach when you recall that a major selling point for the Pentomic division was its increased ratio of "foxhole fighting strength" over the infantry regiment.

It seems we could well have expected that during the past four years field-testing and troop evaluations would have resulted in more far-reaching changes. This is particularly true when we consider that during this period we have added to our arsenal new weapons such as Little John, Lacrosse, and Sergeant.

During the past 15 years we've heard ad nauseam about the possible effects of nuclear weapons on the future battlefield—from strategical studies down to articles concerning small units. As a result anyone can mouth the platitudes of the nuclear age: dispersion, rapid concentration, improved communications, and the like. Too often, unfortunately, these concepts are accepted with no attempt at analyzing the gap that exists between advanced concepts and fighting tools now on the drawing board or being tested, and the hardware currently in the hands of troops.

Organization and weapons determine action

Don't misunderstand me. I favor advanced concepts, in their proper place: at service schools, at CDEC, and as background knowledge which all professional soldiers should have. All I am saying is that you must consider the organization and equipment you have now before you adopt courses of action which at service schools were approved solutions based on maps. It is easy to memorize a school solution where all factors are weighed and analyzed for the student by his instructors. It is mighty different when you face a situation where you must first identify and outline your problem before you can begin to solve it. Before coordinating the two, you must have a high degree of understanding of both future and current concepts. Only through this means can we assure ourselves that the best possible solution has been reached.

During three years with the 8th Infantry Division as chief of staff, deputy brigade commander, and CO of the 1st Airborne Battle Group, 505th Infantry, I have observed command post exercises, Army training tests, and field training tests, to include Seventh Army's winter maneuvers. I think the time has come for another critical look at our infantry battle group organization, to be sure we are getting the most for our money. We haven't given full attention to the concept that fixed and inflexible organizations for combat must be discarded. In too many instances, fixed and inflexible *minds* have managed to stereotype our new organizational concepts.

Last January I was shocked into action when told of my battle group's attachments for Winter Shield II, Seventh Army's annual winter maneuver. To make us a mechanized task force, the West German Army's 54th Panzer Battalion, a heavy tank company, and a company of armored personnel carriers were to be attached to my BG. Slow reaction would be fatal, since we were to face an armored division with its flexible organization based on combat commands, with cross-reinforced armored infantry and armor battalions. I could visualize them cutting us off and their tanks whizzing past my CP. This provided the spur that changed my attitude from "Why don't they do something about it?" to "What can *we* do—now?"

After a year and a half with the 505th during airborne and ground field exercises, I had become increasingly dissatisfied with the battle group's ability to react rapidly to different tactical situations occurring several kilometers apart. The BG initially was organized under the Pentomic airborne division's TOE. During the last few months of this period we were reorganized under the Pentomic infantry division's TOE, but retained

our airborne capability. While "fighting" over extended areas, one of the major difficulties we encountered was the time it took to assemble for orders the commanders of five rifle companies and attached units. This response period was further extended by the time it took these officers to return to their units. Roads were muddy, jeeps got stuck, or radios went out, and the word didn't get through as rapidly as it should have.

Cutting the span of control

To reduce the span of control and to speed up response wherever possible, we utilized a task force commanded by the deputy. When the time factor became really critical, such as during all withdrawals, we resorted to the practice of having staff officers visit and brief key personnel.

Tough paratroopers of the 1st Airborne Battle Group, 505th Infantry, pack heavy loads during 8th Infantry Division participation in Exercise Wintershield II.

The key people who had to be briefed practically simultaneously included company commanders, executives who commanded detachments left in contact, the weapons platoon leader responsible for moving back and organizing the new positions, and all the other attachments and special staff officers. We could meet our required time schedules only by doing all this concurrently.

During two recent division field exercises my helicopter broke down and I had to rely on a jeep. On one occasion it took more than an hour to get from my command post to a flank company. During part of this time I had to cross a deep ravine and was out of radio contact with my headquarters. On today's battlefield such a situation cannot be tolerated.

After analyzing the difficulties which developed during these exercises, it seemed that the critical factor in our delayed response was too great a span of control, complicated by deployment over many kilometers of front in terrain which frequently affected our radios. When we employed a task force in an action separated by several kilometers from battle group, we were required to fight two separate battles—one by the battle group (minus), the other by the task force. It seemed evident that we needed two or more task force commanders heading the companies and reporting directly to battle group. This would allow the BG commander to influence the overall action by shifting fires or reserves, as needed, from one area to another. With this concept in mind, I assembled the staff to study what we had in the way of radios, equipment, and personnel—not only in our battle group but also among our attachments. Then we tried to find a system that would improve our organization for combat and our control over the large numbers of units under the command of battle group headquarters.

While wargaming the problem, it soon became evident that our greatest difficulty would be encountered while fighting on a widely dispersed front and attempting to control such widely divergent actions. We decided that without a helicopter, control by the commander would be virtually impossible.

Needed: flexible and swift response

We concluded that the type of organization most flexible and swiftest in response to group headquarters would be three task forces directly

controlled by battle group. Therefore we decided initially to organize three basic mobile task forces which could be reinforced or reduced as the situation demanded. These task forces could be directly subordinate to battle group-combat team headquarters, and control all the group's organic and assigned maneuver elements. Basically, we formed two infantry-heavy task forces (Silver and Black), and as a third, a tank-heavy force from the 54th Panzer Battalion. Task Force Silver consisted of Companies A and C of the group, plus a tank company of the 54th Panzers. Task Force Black included Companies B and D of the group plus a heavy-tank company. Task Force 54 was made up of the 54th Panzer Battalion minus one tank company plus Company E of the 505th.

During our exercise the language barrier, which might have caused much difficulty, proved inconsequential. Problems of coordination and cooperation between battle group and panzer battalion were reduced to the minimum through the efforts of both Americans and Germans to form an effective and hard-hitting combat team.

Pre-exercise planning started early in January between commanders and staffs of both units. We met at division headquarters and discussed concepts of operations and methods and procedures to be followed during the exercise. A joint reconnaissance of the maneuver area by commanders and key staff officers proved invaluable in forming a basis for future operations.

After the reconnaissance we held a series of planning meetings of the working members of the staffs. This meeting dealt with our SOP, reports, and communications procedures. We distributed to the Germans special folders that included blank report forms and concise instructions for their completion. This instruction and the material provided by each staff section of BG headquarters established a firm basis for close cooperation during the exercise.

The cross-reinforcements were made upon arrival in the Grafenwöhr assembly area, and allowed several days for joint training and working bugs out of the system. This early joint planning and cooperation established a firm foundation for subsequent operations and imbued units of both armies with a profound respect for each other's military competence and professionalism.

The integration of Task Force 54 into the communications system of Combat Team 505 was finally solved to mutual satisfaction. The commander of the panzer battalion provided his adjutant as liaison officer to our headquarters, along with a radio vehicle and operating team, and these were tied into the panzer task force's command net. The panzer battalion commander and his communications officer also tied in directly to our combat team's command net. In turn, the combat team sent a liaison officer with a VRQ-3 radio to panzer battalion headquarters. This liaison officer tied into both the combat team's command net and its administrative net, so as to furnish both with up-to-date data for the operational and logistical staffs. Still another back-up was provided by the artillery liaison officer who was in direct communication with our direct sup-

The same terrain and weather features which have faced European armies for centuries meet Wintershield's forces during winter maneuvers in Germany.

Colonel Mataxis, at right, outlines action on Exercise Wintershield II to General Charles D. Palmer, EUCOM Commander, during heavy snowfall.

port artillery battalion. This gave us three channels through which to communicate.

Austerity in TF headquarters

The headquarters of Task Forces Silver and Black were formed on an austere basis that allowed only sufficient personnel for limited periods of independent action. In order to receive logistical support these headquarters had to operate as satellites around a company headquarters. Silver was commanded by the battle group deputy; Black was headed by the executive officer. Both task force headquarters were organized similarly, and had as staffs one officer to act as S2-S3, the leader of the armored carrier platoon to act as S4, plus two noncommissioned officers as operations and intelligence assistants. In addition, the direct support artillery battalion furnished an artillery liaison officer and party for each task force. Each task force commander was given this equipment: his own organic jeep with VRQ-3 radio; for use as his CP, an armored carrier with a GRC-8 radio; the jeep of the armored carrier platoon leader with a VRQ-3 radio; and the artillery liaison officer's jeep and artillery radio. This allowed a channel for the task force's command net, one for the battle group combat team's command net, plus one for the battle group's administrative net, with a spare for back-up. This arrangement proved adequate during the exercise.

With the battle group combat team organized into three mobile task forces, the need for increased strength in reconnaissance became apparent. Consequently, we formed a provisional reconnaissance troop of two platoons. The battle group's recon platoon, augmented by two 106 recoilless rifle squads, a rifle squad, and an 81mm mortar squad from Company E, was divided into two balanced platoons. The troop was given enough armored carriers to completely mechanize it. This increased considerably the combat team's ability to traverse the extended distances expected during Winter Shield II. As a result of lessons learned during the exercise, we determined that the troop's capability would have been broadened had its scout section been increased to four jeeps per platoon.

Antitank defense is another major problem when you are faced with fighting an armored division. The extended distances over which we had to defend precluded a tight position-type defense. We held key areas and planned to ambush and trap enemy tank columns as they approached. Their mobility, however, and the possibility that an atomic strike could well lay open a whole segment of our area of responsibility, pointed up the need for increased AT defense.

Our major worry concerned not the task forces themselves, but the broad areas between our task forces, and also on our flanks. What we needed was a unit which could delay the enemy in an area until we could shift reserves to meet his threat. We studied the organization of the assault weapons platoon and concluded that by itself it would be too vulnerable to flanking attacks by armored infantry. Consequently we decided to create a provisional tank-killer company by amalgamating the assault weapons platoon and elements of a rifle platoon of Company E (the same rifle platoon that furnished the squad used in forming the recon troop). Thus we had formed three balanced teams, each consisting of two antitank weapons (either SS-10 or 90mm SPAT), plus infantry support mounted in an armored carrier. Acting in conjunction with the recon troop, dur-

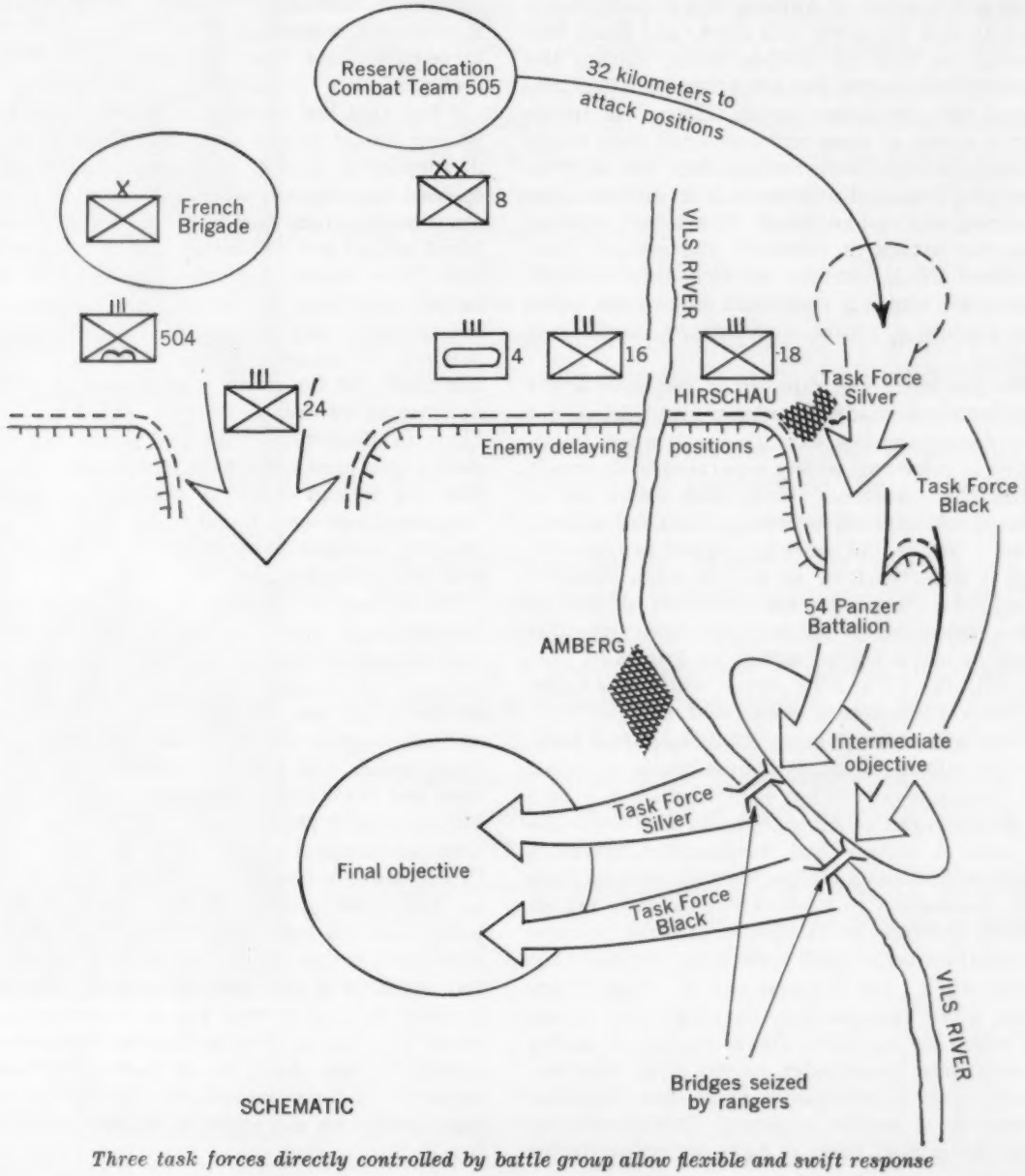
ing the exercise this unit performed as a fire brigade in many instances. Highly mobile, it could move rapidly and develop a situation, allowing time for disposing reserves. At other times, such as when small enemy reconnaissance detachments were met, it was able to confine its efforts to them alone, thus allowing the combat team headquarters to husband its reserves for really serious situations.

In addition to these provisional companies, we formed a provisional ranger platoon of 48 men. This unit could act as a special raiding force or could protect the rear of a patrol, and could exploit special conditions which arose during the exercise.

Once we decided to roll our own, we went all out. Reorganizing from a battle group headquarters into a combat team headquarters, with three mobile TF headquarters and other supporting and attached units, we really extended to the limit the ad hoc communications and command systems we organized. However, after evaluating what the combat team accomplished during the defensive and offensive phases, I would say it was well worthwhile. What if it was a one-shot affair, tailored specifically for this maneuver?

Balanced forces pay off

The combat team's organization of balanced task forces displayed its speed and mobility on the first day of the counteroffensive phase. During this period the combat team traversed 30



Three task forces directly controlled by battle group allow flexible and swift response

kilometers across the rear of the friendly V Corps and into attack positions. At dusk the ranger platoon was dispatched to seize bridges across the Vils River. This would allow the combat team to continue its attack across the Vils to seize final objectives which were several kilometers west of the river.

At midnight the combat team launched its attack on two axes. *(See sketch.)* Task Force Black, predominantly infantry, attacked on the east axis through mountains and over country trails. TF Silver initially attacked with two rifle companies and the heavy-tank company to seize the high ground south of Hirschau. Once this objective was secure, TF 54, with the heavy-tank company attached, broke through and raced for its objective south of Amberg. Silver reorganized and followed. By dawn both Silver and Black had crossed the Vils on bridges seized during the night by the ranger platoon after they had ambushed the demolition parties. Both task forces poured across at dawn and continued their sweep to assigned objectives, cutting deep into Aggressor's rear area and overrunning an Honest John launching site and an 8-inch SP artillery battery. Since the attack at midnight the combat team traversed 22 kilometers on two axes through mountains, across a river, and on to final objectives, cutting all routes of withdrawal south from Amberg.

The flexibility and rapidity of response of the organization we had adopted was highlighted once more during the last day. This was when we attacked to seize two widely separated bridgeheads across the Lauterech River and drove on to Hohenfels Military Reservation. Task Force Black seized a bridge, but as it attempted to cross the river it was struck by an atomic blast. Needless to say, there ensued mass confusion as well as mass casualties. While moving down into the valley to check the situation, we lost radio contact with the CP and TF Silver, which was crossing several kilometers to the east.

When next I heard from TF Silver, after backtracking through muddy forest trails to avoid the contaminated valley road, it had not only seized its initial objective, but its final objective as well. A patrol had surprised Aggressor's guards and seized a bridge. This allowed the task force commander to move rapidly to seize his objectives and dispose his troops in order to repel the counterattack which came later that morning.

Meanwhile, the commander of Task Force Black, after reorganizing, continued the attack and seized his objective. The advantage of having a task force commander on the spot who can rapidly react to reorganize or to best capitalize on success is readily apparent. This system enabled the combat team to fight widely separated actions under close on-the-spot control by the task force commander; yet, as necessary, the CT's action can still be influenced by the group commander. On the other hand, imagine the time it would have taken for these company commanders, fighting in areas separated by several kilometers and out of touch with battle group, to have gotten together to work out a solution.

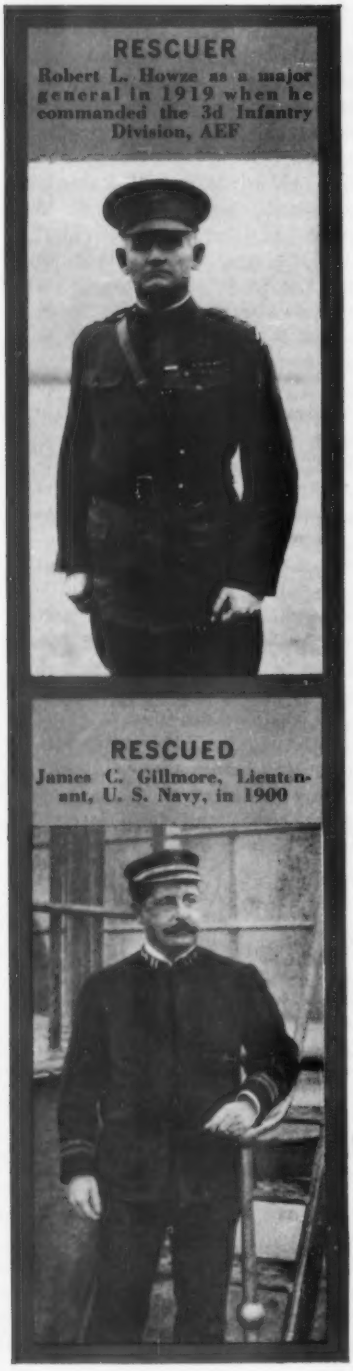
Battle demands quick solutions

The committee system may work all right in the conference room, but on the battlefield there is no time to wrack brains to find the best solution. In situations like this the semantic difference between a military manager and a commander, discussed through many hours at school committee meetings, becomes readily apparent. A workable scheme planned by the commander, immediately and vigorously executed, is still the best assurance of success.

I feel that the solution we worked out during Winter Shield II was practical. More important, it succeeded. It cut our span of control and speeded our response while we fought as a mechanized battle group combat team deployed over a broad area. I don't claim ours was the only solution. I have merely described how one unit solved its own problem. We attempted to integrate to the utmost today's weapons with the practical portions of concepts that point toward weapons and tactics of the future. Our efforts also sought to bring to fruition the concept stated by General Clyde D. Eddleman: "The evaluation of new organizations must come from *troop units* and headquarters up and down the chain of command as they verify by operational tests and actual practice the workability of the concepts, the tactics, and the organizations."

We arrived at our organization by conceptual reasoning and experience factors that would cause teeth-grinding and hair-pulling at our most esoteric test centers or among former colleagues of the King Cole Test Evaluation Group. However, I feel that the final user has too long been disregarded, and that to balance our scientific tests and evaluations we need to hear more from the dirty-shirt soldier.

Major General Lionel C. McGarr, former Leavenworth commandant, affirms that if we are to fully and effectively support the national policy and its supporting strategy, "the Army must further tap the tremendous thought-potential available at its grass roots level." The lesson is plain: it is not enough for us rednecks to gripe about what those "bulging-browed, bedroom-eyed specialists" are doing to us. Let's fully assume our share of the responsibility. Perhaps by working together we will arrive at a true "school solution."



RESCUER

Robert L. Howze as a major general in 1919 when he commanded the 3d Infantry Division, AEF

RESCUED

James C. Gillmore, Lieutenant, U. S. Navy, in 1900

A story for today out of our nation's turn-of-the century experience in pacifying the Philippines

The Rescue of Lieutenant Gillmore

ABOUT 1907, my father, the late Major General Robert L. Howze, who was then Commandant of Cadets at West Point, wrote an account of an expedition to rescue Lieutenant (later Commodore) James Clarkson Gillmore, U. S. Navy, and a number of American sailors and soldiers captured in the course of the Philippine Insurrection of 1899-1901.

This is the original account, to which I have added Gillmore's own report of his capture. Gillmore's report was obtained through the courtesy of the Army's Chief of Military History and the Navy's Historical Division. I have inclosed my own explanatory notes in brackets.

I have edited both stories somewhat, principally in the interest of brevity. I also traced the route of the expedition with the benefit of maps furnished by the Army Attache in Manila, Colonel T. W. Donnell.

It is perhaps unnecessary to remind Americans that the successful conclusion of the brief Philippine campaign in the Spanish-American War was immediately followed by a widespread insurrection by the Filipinos against the United States. The campaign to subdue this rebellion lasted about three years, and occupied the attention of many thousands of U. S. Army troops and a number of U. S. Navy vessels.

This is an episode of that long and gruelling campaign.

MAJ. GEN. HAMILTON H. HOWZE

Lieutenant Gillmore's Report of His Ordeal

UNITED STATES NAVAL FORCE ON ASIATIC STATION

FLAGSHIP BROOKLYN,

Manila, P.I.,
January 8, 1900

Sir:—

1. I have the honor to report the following in regard to the capture of the 2nd cutter and crew of the *Yorktown,* of which I had charge, by Filipinos, at Baler, April 12th, 1899. My diary and official correspondence with the Filipino Officials were lost in the rapids of the Arboluque River.

2. On the evening of April 11th, the Commanding Officer of the *Yorktown* said he wished me, the following morning, to take charge of a boat, to land Ensign W. H. Standley and a Quartermaster, who were to make a reconnaissance to discover the whereabouts of the Church defended by the Spanish prisoners in Baler. They were to be landed at the small cove to the Eastward of the river running past the town of Baler, Province of Principe. The Commanding Officer said he would not hamper me by orders, but directed me not to land, but to sound at the mouth of the river and ascertain the distance of the ship from the mouth, if necessary I was to make a demonstration to call the enemies [*sic*] attention from the people landed.

3. About 4:20 A.M., of April 12th, I left the ship with the 2nd cutter, Ensign Standley and a Quartermaster as passengers. The crew with the Lee rifle and belts filled with ammunition.

4. The following are the names of the boat's crew: [Here Lieutenant Gillmore lists the names of the 14 sailors.]

5. We pulled in under muffled oars and landed Mr. Standley and the Quartermaster. It was just early daylight when we pulled out of the cove for the river's mouth. On nearing the river I saw that a sentry on one of the numerous stations on the beach had seen us. I thought that he had also probably seen us land Mr. Standley, so to let him think that I had been searching for the river, I pulled for it, sounded the bar, ascertained the distance of the ship from the river's mouth and continued in for about 1000 yards, sounding slowly and making a rough sketch, this I thought would make them believe that I had landed no body, but was simply surveying the river. I knew that we would have to sustain the fire of the enemy as we came out, but trusted to the Colt to disarrange their aim which at best is not good. I was quite sure that this would serve to put them off the idea of any one landing in the cove. I have every reason to so believe now. The left bank, the side towards the enemy, was covered by high marsh grass and swamp land, and I knew that no outposts could be there, the right bank was steep too and covered with a dense growth, and from observation, I judged the enemy had only their stations on the left side of the river. As we neared the end of the swamp land, I was about to give orders to return when we rounded the bend, and came full on an outpost on solid ground. He hailed us and fired a rifle as a signal. Before I could answer the hail, a volley was fired into us at close range—50 to 60 yards. The effect of this volley was terrible, [Landsman] Morrisey was killed instantly—his brains being scattered over the boat and crew, and [Landsman] Dillon was mortally wounded, never recovering consciousness and dying shortly afterwards in the boat. Seaman Rynders had his fingers cut off the left hand, but kept bravely to his starboard stroke oar, the starboard oars were riddled and most of them shattered, besides the boat was pierced by the Remington balls and made water fast.

As soon as possible after recovering from the first shock, we opened fire with Colt and rifles,

Colonel Howze Tells the Story of the Rescue

In July 1899 I was appointed lieutenant colonel of the 34th U. S. Volunteer Infantry. Since the colonel was in Cuba, I had the duty of raising and forming the regiment. Fortunately, it was formed at Denver, the men coming mostly from the Far West: cowboys, rangers, and mountaineers. So while most knew little about soldiering, they did know how to take care of themselves in the field and none jumped when he heard a shot.

We were camped at Fort Logan, a few miles out of Denver. Many of the officers of the 34th had had some militia experience, and all the field officers and the adjutant were Regulars. We got into training in a very short time, and in six weeks found ourselves in San Francisco. With two battalions, I sailed on a wretched little ship that I firmly believed would have gone to the bottom on the least provocation. But we had good weather and got to Manila in good shape. The other battalion with the colonel had an awful trip. Of course, we were all keen to get to work, and on the day we landed were sent to guard the south line.

One's first night on guard, when he thinks the whole world is alive with enemies waiting a chance to get his scalp, is pretty trying on the nerves. My men were no exceptions. They saw a man in every shadow, and

the ambush was so complete that we could not see at what to fire, not even the smoke. The Colt was thrown out of action before the second volley, shattering the ammunition box and cutting the loading tape. The order was given to back oars, but as only a very few could be used—the others being shattered, the tide drifted us on a sand bank. [Coxswain] Ellsworth, [Landsman] Edwards and [Seaman] Woodbury tried to swim the boat out but did not succeed. The volleys were poured in on us on the left bank in quick succession, wounding mortally, [Ordinary Seaman] McDonald and [Gunner's Mate 3d Class] Nygard. At this time I was under the impression that most of the crew were either wounded or killed, the bodies of the men who had been killed had fallen on the slighter men, who were struggling in the bottom of the boat. The boat was covered with blood and presented a fearful sight. The cries of the mortally wounded in the stern of the boat, asking me to shoot them and not allow them to fall into the hands of the enemy, were heart-rending. At the same time could be seen, coming down the right bank of the river, a band of men armed with Remingtons, bows and arrows, bolos, and spears. I gave the order to hoist the white flag, which was done by Rynders who received a shot in the right wrist and dropped the flag. I thought the enemy intended to massacre all of us, so continued to fire. The fire of the enemy coming faster. We were now hailed from the left bank in Spanish, the officer saying that if we did not cease firing and surrender that he would kill us all. I then surrendered. Before the Officer on the left bank could get across, the enemy on the right bank came up, took us off the boat, tied our arms behind us with bamboo thongs, and lined us up on the beach to be shot. Those who had rifles loaded them and had them already cocked when an officer came out of the bush and ordered otherwise. We were then sent on board the boat, and after plugging up the holes made by rifle balls pulled up the river.

6. I regret to say that I now found the following casualties: Morrisey and Dillon dead; Nygard and McDonald, mortally wounded; [Apprentice 1st Class] Vanville, Rynders and Woodbury seriously wounded; myself slightly in the knee by a ball which came through the side of the boat. We were landed some distance up the river, and were allowed to take the mortally wounded out of the boat and place them on shore, and to rearrange the tourniquets to the wounds. The seriously wounded we carried with us to the Commandant's office about a mile and a half distant. We were under a strict guard. The Officer in charge of us would not allow the mortally wounded to be taken with us. The Officer said they had a medical Officer and would send him down to attend the men. I never could ascertain whether this was done, as the next day all who could were marched across the country to San Ysidro. At the Commandant's Office I requested to be allowed to write to the Commanding Officer of the *Yorktown* to notify him of the facts and to request medical attendance. This was allowed me, but I found later that the letter was never sent.

Before ending this report, I will mention men whom I particularly noticed, all however behaved well. *(Here Gillmore commends the actions under fire of Walton, Vondoit, Ellsworth, Rynders, Vanville, Edwards, Woodbury and Peterson.)*

In conclusion, I trust that my action in attempting to save Ensign Standley and the Quartermaster from imprisonment, if not death, will be approved. My sole thought was to do this, and although the expedition turned out so disastrously, I have suffered from it. My only regret is that my boat's crew had to suffer with me.

I am, Sir, Very respectfully,

J. GILLMORE
Lieutenant, U. S. Navy

The
Commander-in-Chief
U. S. Naval Force on Asiatic Station

when the breeze stirred the banana leaves—which like great arms began reaching out for our lads—they let fly, and roused the whole camp. I just turned everybody out and had them man the trenches all night. The next night the sentinels were made to understand by their comrades that if they raised a scare without a cause they would get what-for. We had no more trouble.

In about five days we went by rail to San Fernando, where the colonel stayed with one battalion as I proceeded north with the other two. We had a number of little brushes with the Insurrectos, chiefly valuable in teaching my men to stand fire.

Marching was terrific. It was nearly November, the tail end of the rainy season; the rice paddies about us were all under water and no words can describe the condition of the roads. The higher bits were quagmires, the black sticky mud ankle to knee deep, while the lower portions were virtual rivers. We had to swim 19 times in one day's march of 17 miles. Most of us had started out with a few little comforts: blankets, rubber bathtubs, little writing cases, pocket medicine cases. The water ruined everything that wasn't otherwise abandoned, and from this time on I had my wet saddle blanket, a change of underclothes, a canteen and a pencil.

We lost one or two men by drowning. It is hard for people in [the United States] to realize why so many men drowned in the Philippines.

When we neared Victoria we were surprised to have the whole town rush into our arms. The people were fleeing panic-stricken from [Brigadier General Arthur]

MacArthur [General Douglas MacArthur's father] who had just captured Tarlac, and the retreating forces had demoralized Victoria. We gathered the enemy soldiers in and burned their arms.

At Victoria I found the names of 14 American prisoners scratched on the wall of a house which had been used as a jail, but Gillmore's was not among them. He and his party were joined to this group later. A native handed me a note from them addressed to any American, saying they didn't know where they were to be taken and begging for rescue.

We had become a sort of flying column, and proceeded north by a road parallel to the railroad, to protect it, and were just in time to save a bridge over the Agno River from destruction by the insurgents. We were without transportation and were living off the country. Poor living it was: a little rice and sugar, and occasionally carabao, which is like eating gumshoe. We passed up through General MacArthur's and General [Loyd] Wheaton's commands and on to that of General [S. B. M.] Young. Here and there along the route I would get a note handed over by a native, asking immunity for him because of some kindness to the American prisoners. I gathered from some of the notes, often two months old, that Gillmore's party was now with the others.

Aguinaldo [General Emilio Aguinaldo, leader of the insurgent forces] had moved his headquarters to Bangued, his interior capital and the capital of the Province of Abra. When we arrived at the seacoast town of Narvacan, we found that there were but two ways to reach the interior capital: one over the mountain pass known as Tangnadin Pass, the other by the river route on rafts. Where this river [the Abra] passed through the mountain range it was very deep, and the walls some hundreds of feet high. It was impossible to get through this way except upon rafts, and the pass was also well defended. We therefore decided on the mountain route.

Upon arriving within a mile and a half of Tangnadin Pass, we discovered the trenches of the insurgents terraced up the mountain side: ten of them, well made, revetted trenches, with bombproofs and living quarters. In these trenches were about 1,500 insurgents who had never been subjected to American fire, with 10 cannon of which two were modern. While we were viewing the situation, the insurgents opened fire, and at the first volley killed one man, shooting him in the head at the extraordinary distance of one and a half miles.

It was evident that to take these trenches by direct attack would entail considerable loss. General Young came up. After I completed what might be called a standing reconnaissance, I reported my view of the situation to him and outlined a plan which I believed would be successful. He said, "This is your fight; go ahead."

I had one battalion of infantry and three troops of cavalry. I decided to send Major [Julius A.] Penn with two companies to make a turning movement by a wide detour over a terribly rough mountain route, while two of the troops of cavalry were to make a feint so as to cover him. With a view to making a closer reconnaissance so that at the proper time I could assault the trenches from the front, I selected 25 infantrymen and proceeded forward. I had thought that Penn ought to complete his turning movement in five hours, but in this I made a mistake because, like all turning movements, it took much longer.

With great difficulty and care my reconnoitering party finally got to near a knoll which jutted up in the middle of the valley. The top of this knoll was about on a level with the lowest insurgent trench. Upon arriving at a point perhaps 150 yards from the base of the knoll, I discovered two insurgent outposts, one to the right and one to the left, at distances of about 75 yards. To reach the knoll it was necessary to cross a cotton patch fully exposed to the outposts and to all the insurgent trenches. We had to destroy those outposts, so I designated six men to fire upon one outpost and six upon the other, both squads to fire at the same moment. This worked well and we made a rush for the knoll, which we reached without loss.

This started the real fighting. We made our way to the top of the knoll, thinking we would be protected there, but we found we were exposed to the higher trenches. In a few moments seven men were wounded by the plunging fire, one fatally. All were shot in the back because we were lying prone.

We remained there until nearly dark, nothing yet heard from Major Penn. I decided that we could wait no longer, and sent back for 100 men to assault the position as soon as it became dark. I had the men remove all articles which were bright or white and all which would make a noise, and gave very definite instructions as to the conduct of the column. Then, in the lead myself, we proceeded to advance. Based upon observations made from the knoll, I believed that we could pass the lower three trenches in the darkness without being discovered, but I also knew that when we approached the fourth trench, which was squarely across the trail, a fight would necessarily follow. I adopted a system of hand and touch signals, and told off eight leading men to fire to the right and the next eight to the left. Only the first 16 men were to fire until the general order to fire was given.

We passed the three lower trenches, so closely that we could have thrown pebbles into them, without being discovered. When we got within about 30 yards of the fourth trench we were challenged in the native language, whereupon I signalled "Lie down" and we hugged the ground. After waiting about two minutes, I signalled "Advance." When we got within about 15 yards of the trenches, we were again challenged in dialect and in Spanish as well. This was immediately followed by a terrific fire right into our faces. This of course was a signal for my 16 men to jump into the trench and enfilade it, eight to the right and eight to the left. For a while it was a hand-to-hand fight, but it was short. Very soon my 100 men were all in the trench, whereupon volleys were fired into the trenches below us, at the mountain side, and into the trenches above us. This practically cleared the pass, because the insurgents found us between the trenches they occupied and they could not fire either way without shooting into their own.

We proceeded to the top of the mountain, clearing all the trenches, and from this point I was able to

Colored dots show route followed by Colonel Howze in his search and rescue of Navy Lieutenant Gillmore

communicate with Major Penn. He was some two miles away, having at about that time completed his turning movement. It was remarkable with what clearness we held this conversation, over an immense chasm.

I took stock of my losses and of the captures made. In the assault only three of our men had been wounded, one fatally. We had killed about 35 insurgents and wounded about 85; we had captured hundreds of thousands of rounds of ammunition, and great quantities of materiel. I reported, by shouting, to General Young, who was still where I had seen him in the morning, now at a distance of a mile and a half.

We remained for the night in the trenches, with scant food and a little water, as it was now the dry season.

The next day we marched on to Bangued, arriving two days later. Here we again met the insurgents and rescued some 1,100 Spanish prisoners. Upon our approach Aguinaldo with his immediate following left the capital, going to the southeast into the mountains where, nearly two years later, he was finally captured.

Gillmore and the American prisoners, who had been for some weeks at Bangued, were sent north under General Tinio. Tinio had been in command of the forces at the Tangnadin Pass fight.

My goal was to rescue the Americans. I realized that the prisoners probably could not escape us, but it was likely that Aguinaldo could because to us all Filipinos looked alike. So we proceeded on the trail of Gillmore, which by this time might be said to have become hot.

Before leaving Bangued it was necessary to dispose of the Spanish prisoners. They were an unruly lot, having been captured some 20 months ago. The liberty they had longed for was too much for them. They proceeded to destroy houses, abuse women, and get beastly drunk. It was no easy matter to handle this situation, and it took us some 24 hours to get them fairly under control and start them, properly labeled and instructed, to the seacoast, from where they were dispatched to Manila.

After leaving Bangued, we proceeded to a town called La Paz [unlocated, presumably north of Bangued], arriving there after dark. Outposts were established as usual. At about 9 o'clock, one of the corporals in charge of an outpost reported that cavalry were approaching from the south and crossing a stream running immediately below the town. I went out to the outpost to look the situation over, saw that an insurgent force was approaching, and prepared to meet them.

The enemy force marched blindly right into us. When the command to halt was given in Spanish, the force broke and we opened fire. We destroyed the greater part, killing the insurgent General Quesada among others. He was the commissary general for Aguinaldo, and was looking for him. He had about 40 mounted men and a large porter force of Chinese; they had money, tobacco, cigarettes, silk, and articles of wearing apparel, all of which belonged to Aguinaldo's personal suite. We got it all. During the brush, three of the American prisoners who had escaped from the insurgents two days before came in to us. From that time on we used their knowledge in following Gillmore's trail.

We proceeded north. When we arrived at the Igorrote village of Dunglas [unlocated, undoubtedly in the Ilocos mountains north of Bangued] we found that we were right on the tail end of General Tinio's rear guard.

Tinio's force had started from Bangued with a vast quantity of materiel. At Dunglas the trail had become so difficult that the insurgents had had to change their means of transportation from carts to sleds; in doing so it had been necessary for them to leave a large amount of materiel. We picked up and destroyed some hundred thousand pesos' worth of property, some 300,000 rounds of ammunition, and 300 rifles, plus several of the cannon which had been used in the trenches at Tangnadin.

A few hours later we ran into the rear guard at a point where it had found the trail still more difficult, making necessary a transfer of the remaining cargo from sleds to pack. The rear guard, when we overtook it busy at the process of transferring, consisted of about 100 insurgents, with as many ponies and carabao. We took the party by surprise, and the fight which followed resulted in its destruction as a fighting force. Those whom we did not kill abandoned their arms, all of which we captured and destroyed. One of the carabao was loaded with money boxes and in the fight he was evidently hit, and made a break down the mountain side, money flying right and left.

This fight was such a surprise to the insurgents and so well handled that we suffered no losses. Among the captured materiel we found two 2.4-inch modern Krupp guns, which were destroyed with all other property.

We proceeded once more on the trail of Gillmore and the main guard, and during the next two days we had seven fights against ambushing insurgents. They kept Gillmore and the other Americans well to the front, using the guard as a buffer to delay us.

The mountain trail was impassable for troops with any impedimenta, and the difficulties we encountered can be understood only by persons who have experienced such work. On the third day we arrived at a town called Banna, and there too we captured quantities of materiel including telegraph wire, instruments and insulators, as well as medical stores and general hospital equipment. Among the captives were several officers and doctors.

While we were taking stock of this situation, an American, fully armed, who did not belong to my force, was brought up. His story was remarkable. He belonged to another force which at that time was more than 75 miles from us; he had been on outpost, at night, and did not know his surroundings. While on duty he had fallen asleep, and the order of the commanding officer had been that after a stated time all outposts should come in. This man had not come in, and was left by his command. When he woke next morning he became demoralized, and after giving a number of yells for help he pulled out. Instead of following his own command he went to the north, and in doing so struck our trail, then two days old. He

Twenty-three of the 27 persons in the Gillmore party pose for a photograph on 18 December 1899. Lieutenant Gillmore, whose face cannot be seen, is the man waving the flag

thought it was that of his own command and, quite alone, he proceeded to march 75 miles without sleep, and here he was.

From Banna we proceeded 12 miles to Dingras, and on the route through the hot, flat country we found at least 100 Spanish officers, deserted by their fellows who were able to go on. With great difficulty we took them with us, and upon reaching Dingras rescued from the insurgents some 350 more Spanish officers, one of whom was a Major General Pena. He rushed up, threw his arms around me and attempted to kiss me in appreciation for the great service we had rendered his poor army. I was furious because of his neglect and abandonment of those of his own officers who were too ill to travel, and I resented his greeting. I called an interpreter so that my feelings would be thoroughly understood by this gentleman, but he was of a forgiving nature and assured me he would have his sovereign decorate me for this valiant service. Later he sent me a tortoise shell cane as a token of esteem.

At Dingras I found a *querida* [mistress] of General Tinio, and spent about two hours trying to discover from her the intended destination of the American prisoners. With the aid of some Spanish officers I succeeded in finding out that it was to be an Igorrote settlement, in the high mountains called the Cordillera del Norte. This information proved most valuable. We found it was necessary to go back south about two miles to take up the trail. We never lost the trail once after we had gotten hot upon it, although the insurgents, assisted by local natives, did their best to mislead us and to obliterate tracks.

We moved on to Solsona, arriving at dusk. We ran into a force of 40 insurgents in charge of about 100 Chinese, assembled under compulsion as porters to take food for the American prisoners and their guard into the mountain fastness. After a sharp little skirmish the insurgents decamped without their Chinese. I rode into the plaza and up came a Chinese, called Pat, who served as a porter for the hospital detachment of our force. I had heard a remarkable noise emanating from what proved to be the schoolhouse, a building made of bamboo and set on stilts. I asked Pat about the noise; he said it came from Chinese. Pat then shouted that we were Americans and friends, at which his countrymen pushed down the whole side of the building and came tumbling out from the second story, a happy lot. With some difficulty I returned them to the seacoast, whence they were finally distributed to their homes.

Early next morning we proceeded to a barrio known as Maningting, where we actually ran into the rear part of the immediate guard of Gillmore and the prisoners. But as before, the prisoners were kept well to the front, and they had been marched part of the way into the canyon which led down from the highest part of the mountain range.

By this time my men were dead on their feet. We had been living off the country for nearly a month with the exception of half-rations for four days. I took stock of the footwear and found that only 12 men in the whole command had any leather whatever left. Most had also worn out their leggings through using them as wraps for their feet. Ammunition supply was reduced to less than 35 rounds per man, and that was the lowest I deemed safe.

We went into a camp located so as to block the canyon. I made a reconnaissance about three or four miles up the canyon, and decided that it was impossible for the insurgents or Gillmore and his party to leave the canyon except through its mouth. Mean-

while we waited for shoes, ammunition and rations, for which I had sent several messages by natives to the seacoast.

While we were camped across the canyon about two-thirds of Tinio's guard deserted from their command and, returning through the canyon, were picked up by my men. General Tinio himself had not gone into the canyon with the guard.

On the third day we received ammunition, 150 pairs of Navy shoes and stockings, and half rations for four days. It was here that Colonel [Luther R.] Hare came up. General Young, who had not heard from me for ten days, had become alarmed about our safety. In order to get in touch with us and to reinforce us if necessary, he had ordered Colonel Hare to mount 100 men upon native ponies and follow us with all haste.

We then moved forward on Gillmore's trail, but in the meantime the guard and prisoners had gotten considerably ahead of us. After proceeding up the canyon about eight miles, it was necessary to abandon all horses and to proceed mostly by wading in the swift mountain stream, under very severe difficulties. Upon nearing the top of the mountain we found that the trail forked, one branch going to the right and the other to the left of the highest peak; we found later that these two trails came together on the opposite side.

The sugar cane we picked up from time to time on the trail indicated that we were very close to some kind of a force, and it was also evident we were approaching a habitation.

While we were making preparations for an assault, a shot was fired from below us. That was the signal for us to make a dash. We found the hut surrounded by insurgents, but in a very short time that force was either captured or killed with the exception of two men who were off with an American looking for food.

In the house were two of the American prisoners, and pretty soon the third came in, bringing two rifles. He explained that he had been out looking for pigs under the guard of two insurgents, but that when the firing was heard the guards threw down their rifles and ran on forward.

It developed that two days previously all three had escaped from the insurgent guard. Believing that the canyon back of them, up which the trail led, was filled with enemy, instead of returning they had proceeded forward, hoping to dodge the guard in the course of time. When they came to the fork, they took the left-hand trail. The commander of the Insurrecto guard shortly thereafter had dispatched a force of 24 men to the fork because he reckoned that the prisoners could return only by coming back to that point, either over the trail they had taken or by circling the peak. The three Americans were picked up by Igorrotes who pretended to befriend them, but who in fact turned them over to the posted 24 men. These we overtook at the hut, where we killed some and captured the rest.

One of the American prisoners was wounded, shot through the hand. It turned out that the shot which led me to believe our approach was discovered was fired at a chicken by one of the insurgents.

We found later that the two men, who with the one American had been out looking for food, overtook the guard and informed the commander of what had happened, exaggerating it, telling him we had killed all the insurgents. The commander then held a consultation with his own people, and apparently decided that his fate would be the same as he believed that of the others had been. In consequence, on the day before we finally overtook Gillmore, the guard totally abandoned the American prisoners, leaving them without even a knife to the mercies of the wildest headhunters of the Philippines.

After we had crossed the high ridge, we encountered a river known as the Apayao. It is a large mountain river of rapids and waterfalls, at no place fordable, that can be crossed only with the greatest difficulty and danger. After we proceeded downstream for a day and a half the Americans' trail became very clear, and it was evident we were close upon them.

At about eight o'clock in the morning, on December 18th, I found very fresh footprints made by men who had waded from the water into the sand.

Of course we knew nothing of the fact that the insurgents had abandoned the prisoners. I organized the leading scouts with a view to making a capture and then went forward, taking great care not to make a noise or be seen. Just beyond a spur, formed where the river made a sharp turn, I saw what I believed to be our quarry. Completing the organization for the final capture, I went around the spur and called out as loudly as I could, "Americans, lie down!" so that when we opened fire upon the insurgents (should it become necessary) the Americans would escape injury. Instead of obeying my order, the prisoners all rushed toward us, much to our confusion and disgust, because we had desired to inflict a little damage on the guard. It turned out, however, that the Filipinos we had mistaken for insurgents were Igorrotes; Gillmore stated later that he believed the Igorrotes were congregating about them in numbers with a view of destroying them.

Our motley crew of rescued prisoners now consisted of Gillmore and 27 men. [Gillmore's original boat crew consisted of 15 men, of whom four were killed at time of capture; it is apparent then that about 17 of the prisoners were not of the original Navy party. Gillmore's party had been prisoners eight and a half months.]

Following the meeting there was naturally a love-feast, with all the prisoners and most of us in tears. They had given up all hope, believing it would be absolutely impossible for any rescuing force to reach them. We gave them the little food that a man here and there had saved out of the half-rations received five days before. We now found ourselves deep in the tropical jungle without food of any kind, and with 28 helpless, half-starved sick men on our hands.

The question of getting out was now the problem. For a day and a half we had traveled down a stream so swift that it was absolutely impossible to go up it. When we rafted across it—done in the crudest way—we were forced to land two or three hundred yards lower down on the opposite side.

We knew there was not a particle of food over the route we had come. Whatever was before us was

A leader of Filipino insurgents hears Captain G. A. Detchmendy, 22d Infantry, read the orders of a Military Commission sentencing him to 99 years' imprisonment for burying one of Lieutenant Gillmore's party alive

unknown, but so long as it was unknown there was hope that there would be food. So we got together what rafts we could, and putting the sick and lame upon them, we started down.

I chose two strong sergeants to go forward with me to aid in picking the route and in finding crossing places so as to save every possible step and otherwise to reduce the difficulties. At each place where I found we were compelled to cross the river I always hoped we could ford, saving thereby time and the immense expenditure of energy necessary in rafting across. Always I was disappointed.

To cross, we required the men to strip. One man would be put in charge of each raft, with the clothing and equipment of six on it; those of the six who could not swim would hang onto the tail of the raft. No man who could swim would be allowed to touch the raft.

Of course we would make our way as far as possible on one side; but wherever the sinuous stream changed direction there was an impassable wall. All our progress had to be made on the beach side of the river, on the inside of the curves.

When I had determined upon a place of crossing, I would send the two sergeants into the water with the object of finding out whether it would be possible to ford. But we repeatedly ran into insurgents, and one day when the sergeants were in the water four men on the other side, rifles on their hips, jumped up from behind a boulder and sought shelter behind another and larger one. I thought of course they were preparing to fire upon the men in the river, so I called to the men to return at once, and grabbed one of their rifles. Knowing the insurgents pretty well by this time, I was sure that if I opened fire first they would duck and shoot high. So I fired at the top of the boulder and hit it, whereupon they ran up the slope into the brush. I gave them a parting shot, hitting the rear man in the top of his head, literally scalping him. He fell dead into the river.

The stream was largely made up of rapids and waterfalls. We were often forced to abandon the rafts, hoping to pick them up in the eddies below. Fortunately, bamboo, the only Philippine wood that will float, grew in that part of the country, and we were able to make new rafts to replace those we lost.

When we were unable to take the sick and lame by rafts, they had to be portaged around. Sometimes we would work from sunrise to sunset, and make no more than two miles. One day we crossed the stream 12 times, and some crossings were so difficult it would take us two hours to cross once. Occasionally we came to places where the river, in cutting through the mountains, left precipices of great height on each side.

We had to go up those walls or stay where we were. Sometimes my lead party would have to detour a mile or more to reach the top. By means of ropes of rattan and vines, the rest of the command would then be hoisted up. The getting down often was just as difficult.

On this terrible river we found a number of Igorrote villages, each of eight or a dozen shacks. To protect themselves these wild people had placed their habitations in the most inaccessible places against the mountain side. Their huts were surrounded by artificial barriers, with only a narrow trail for ingress and egress. In advance of our arrival the approach to each village would be planted with man traps: spears of sharpened bamboo, concealed in the high cogon grass bordering the trail. Some of these spears were long, placed in the ground to strike one in the abdomen as he brushed through the grass. Others were short and planted so as to pierce a man's foot. The wet leather of our shoes was no protection; three or four men had these villainous spears thrust entirely through their feet, leaving them painfully and helplessly lame and a further burden on our already overworked command. You can imagine our feeling towards these people, especially after the most valuable man we had—specially selected to lead the way—had run a spear through his foot, shoe and all.

All this time the men were losing vitality, living mostly on roots, herbs, and occasionally crude sugar cane. When we came onto a cane patch we ate every bit of it, leaving not a single joint. The Igorrotes upon hearing of our approach attempted to hide every particle of food.

Now and then we would find a bin of rice in the sheaf. But we had no way to clean it—the mortars and pestles used by the Filipinos having been hidden or thrown into the river—so we would flail off some of the chaff and boil the grain in the husk, without salt or other seasoning. We suffered more from the lack of salt than from any other thing, because what little food we got was utterly tasteless and unpalatable. Whenever food, of whatever quantity, was found, it was turned in to the proper officers and divided so that every man got his share. Of course this was not always practicable, and I must say I think I got more food than any other man, because they insisted on it: someone had to keep a little stronger than the rest. Nevertheless, I lost 35 pounds, and the larger part of the command did not recuperate for three months.

We lost two men from exhaustion and lack of food. Spirit and determination, and the fact that we had succeeded in our quest, saved the lives of the rest. In the movement across the mountain and down the river, 23 days for the majority of the command, we had two messes of pigs, about four meals of unhusked rice, and a mess of sugar cane about every third day.

In the mountains the temperature was about 50 degrees. The water of the river [which by now was the Abulug] was cold, our vitality was low, and our clothing always soaking wet. We had no blankets or bedding of any kind. Nights were bad, too, for we were cold. Some of the men tried to sleep while others kept up the fires, but dry wood was scarce and green or wet wood would not burn. Finally we found it necessary to halt for at least two hours during the warmest part of the day, to allow the men to sleep in the warm sun.

Each day the number unable to walk increased alarmingly; we had to find help if we were to get out.

At noon on the seventeenth day, after the river had turned north, we saw smoke ahead, and the shape of the mountains indicated we were approaching the sea. I believed the smoke to be from a Navy ship, because I knew that General Young, in compliance with my request sent him by native messengers, would send a vessel to the north side of the island to stand by for us. Thinking perhaps that we had stayed longer in the mountains than the naval commander believed possible and that he might be losing patience and be preparing to return without us—because the vital force of the command was now at a very low ebb—I decided to take a small party ahead to make contact and get help. I selected the four strongest men, saw that their rifles were in proper shape and belts filled with ammunition. We proceeded down the river on a raft, expecting to reach the sea that day.

At about six o'clock in the evening we had gone, I should say, about 25 miles, and the sea seemed as far away as ever. As we rounded a river bend we ran into some half dozen insurgents, in bancas [dugout canoes]. We promptly opened fire, and succeeded in capturing the bancas. We went on in these craft—safer and faster than our raft—until dark, and then pulled into shore at a small habitation. We had hoped that the people there were civilized Filipinos but it turned out they were Igorrotes, all of whom, as usual, ran to the hills. During the night an old Igorrote came in to our campfire, and I was able to explain to him that we were friendly, and asked for food. He gave us a feast: hulled, clean white rice, eggs and chicken. However, some of his people also came back into the village, and since the five of us were no match for a large Igorrote rush, it was necessary for two at a time to remain awake and on guard all night.

Next morning we persuaded the Igorrotes to act as oarsmen for the bancas, and continued down river. About eleven o'clock we found ourselves approaching a large town. It was also evident that we were nearing the sea, as we were within the limits of tidewater. As we neared the town, I saw a great number of small boats crossing the river from right to left, flying the insurgent flag. This of course was very upsetting; it was not pleasant to think that after our labors we were about to find ourselves in the hands of the enemy. We waited until what appeared to be a cessation of the passage across the river, and then landed on the town side. I carefully instructed my four men to form the angles of a square with me in the center, to do no talking themselves, and to allow no native to get near them. In a few moments we were surrounded. I ordered the natives in Spanish to take me to the presidencia, and I also sent runners to the presidente [mayor] and other officials.

We proceeded to the presidencia in formation, and there I ordered food, ponies and boats—the ponies for the five of us to ride, the boats to go up the river to meet the command. It was no time to *ask* favors. We could not acknowledge our weakness. If we had, the five of us would have been killed or captured. I gave orders as if I had a thousand men at hand. Pure bluff, but successful. In the meantime, I found out that the USS *Princeton* was at Aparri, 16 miles away.

We were at Abulug, a town of about 8,000. No Americans had been there. The people I had seen crossing the river were going to an island in the river to celebrate New Year's Day; this was the first knowledge I had that it *was* New Year's Day.

The presidente furnished food for us fairly willingly, but hesitated about furnishing the ponies. The man in charge of the boats refused to furnish them. I had him tied, and stated to the officials assembled that I was going to hang him. Then I sent for his assistant and told him his fate would be the same if he failed to produce the boats required. I demanded 40 boats, 10 pigs, 10 sacks of rice, and what sugar and coffee they could find, all of which were to be taken in the boats up river to meet the command. I told the presidente that if he did not comply with these orders his town would be destroyed and he himself hanged by the main command when it arrived.

When the ponies were brought up, I took the chief of police and the man in charge of the boats, the latter securely tied, and stated to the people that I was going to make the chief of police hang him. When out about two or three miles, I told the chief I would hang the man myself, and that he could return to Abulug and assure the people that the boatman had been hanged. The effect of this was excellent, because my orders to the presidente and the man left in charge of the boats were about half carried out, and I had allowed for just about that result. I took my

Another photo of 13 of the men rescued with Lieutenant Gillmore. Ten of these men are identified as American soldiers, two as Britons and one as Canadian. None are identified as sailors; probably they were captives added to the Gillmore party by the Filipinos

prisoner on with me to Aparri, because I did not want him to return before the arrival of the command.

When we got to Linao, a barrio [suburb] of Aparri, I found that the *Princeton* stood at least three miles out to sea. We were on our last legs physically. With some trouble I compelled some natives to row us out to the ship. We arrived at dusk. We were without shoes or hats, and we had little clothing below the waist, having used our trousers to wrap our feet.

It took some time to convince the officers of the *Princeton* that we were real live Americans. The Navy, however, rose to the occasion and without hesitation sent back that night to Abulug, a distance of 16 miles, all the officers and men who could be spared, carrying food and medicines. The officers assured me that so far as it was in their power they would see that the presidente carried out my orders.

On the third day the command arrived at Abulug and were transferred that same day by bull carts to Aparri, and were then placed on board ship. First attention was given to their feet, lotions and vaseline being applied. The men sitting on the deck were a pathetic sight: features emaciated, eyes sunken, hair and beards ragged. Feet in some cases were swollen to twice the normal size.

The command was finally returned to Vigan on the west coast, and a large part of it was left there to recuperate.

[I am tempted to embellish this tale by speculating briefly on how our current equipment might have affected the action. I believe the answer, as respects the actual movement of the pursuing force, is: not much.

[Vehicles, of any known type, could not have made the trip. Radios? The question arises as to whether the expedition could have carried them. Certainly extraordinary measures would have been necessary to keep them supplied with batteries. Modern medicines should have reduced disease.

[While helicopters would undoubtedly have been employed for pathfinding, their ability at reconnaissance would have been greatly restricted by the close-packed Philippine jungle. But throughout, of course, helicopters would have been invaluable for resupply, and evacuation of the sick and wounded. Also, helicopters could have lifted out the entire party after the rescue was made.

[But for the rest, the arduous marches, the jungle fighting, and the heat, leeches and flies would have been the same. In the last analysis, it was an infantry problem, and it took infantry to solve it.]

On 6 January 1900 this letter came from the Executive Chamber in Albany:

My dear Colonel Howze:

Just a line to say how pleased and proud Mrs. Roosevelt and I are over your triumph. I have been watching your career with the utmost eagerness, and now comes the news of your striking triumph. I congratulate you more than heartily.

Pray present my regards to Colonel Hare also.

Faithfully yours,

THEODORE ROOSEVELT

Battered Military Ornaments

An attempt (forlorn) to accurize military English

N. J. ANTHONY

IN his article in the May issue, on fractured English as written in the Pentagon, Mr. Fred D. McHugh beat me to the deadline. For many years I have been jotting down what I came to call Battered Military Ornaments that come to us undiluted in the manuscripts of aspiring military writers.

In beating me to the deadline, Mr. McHugh did spur me on in my intention of composing a short essay in which this collection of military malapropisms would be so used as to resemble a piece of today's writing. This would be followed by a translation to show how ludicrous the military use of English has become.

It seems that instead of reaching for a dictionary or a book of synonyms, some military authors prefer to improve upon Webster by inventing new words, prefixes and suffixes, or applying astounding definitions. We have space for only a few examples.

First, clichés. It's too simple to say a gun *can fire.* Rather, say it is *capable of firing,* or *has the capability of firing.* Why are military writers reluctant to use the words *soldiers* and *troops?* They prefer *personnel, individuals,* or *bodies.* Soldiers, units and commanders never *fight;* they *operate. Headquarters* have become *echelons, methods* have become *techniques. Among companies and platoons* is too easily understood; make it *at company and platoon level. Units* or *outfits* are always *organizations.* A thing never is *ignored,* it is *paid lip service.* Still battling is that team of stalwarts: *area, problem, problem area* (whatever that is), *program, provide, requirement, operation, situation, unique, criteria* and *data* (the last two always used in the singular sense).

Suffixes allow great use of the imagination. Never mind Webster; invent your own. If you must describe an application, simply add *ize: cannibalize, categorize, optimize, finalize*—even *dieselize* and *ruggedize.* Why not apply the *ry* in soldiery to your own uses, and come up with *riflery, weaponry, missilery, wantonry?* Past tenses need not bother you: *headquartered, costed, shorted, echeloned, routined, sentineled.* Add *wise* and you save much time: *intelligencewise, weatherwise, weaponwise, unitwise. Inductee, retiree* and *enlistee* are bad enough, but we've seen *afflictee, testee, briefee, invitee, interviewee,* and *coordinatee.*

Prefixes offer less trouble, probably because most can be easily used to indicate the negative. But how justify *debrief* for *interrogate, unestablish* for *discontinue, non-greasy* for *not greasy?* What are *non-German speaking people,* and what is a *non-existent road net?*

As for words incorrectly used, what is the ROTC cadet, who is majoring in English, to think when he hears his PMS speak of *the Army's exotic* (foreign) *weapons; items* (paragraphs) *of equipment; present* (current) *organization;* or *sophisticated* (worldly wise) *missiles?*

The list of inventions is long, and space allows only a few examples. We are told that rifles should be *accurized* before match competition. *Maintenance downtime rate* means, we think, the percentage of vehicles out of service because of needed repairs. In Finance jargon *the soldier's entitlement* means *the soldier's due.* To anyone but a military writer, *format* means the physical shape of a publication. *Natives* are *indigenous personnel* (isn't it bad enough to be called personnel without being classed as indigenous?). One outfit sank to the heights of *mediocracy.* Because we can't match the enemy's manpower, we must *out-technique* him. The *phony scientificalism* of Marxism. Artillery ammunition was in *short supply* (Winston Churchill once asked what's wrong with the good English word *scarce*). *Shortfall* is a classic. It means "the number we are short by." Lastly, we give you *the practice is considered aesthetically unattractive. You* figure out that one.

As for pomposity, we can top Mr. McHugh's examples. Long ago, this one came out of Benning: "This semi-automatic, small-caliber shoulder-fired weapon, because of mechanical derangement, ceased to function." All that means *the rifle jammed.*

"Air born" of experience in brushfire war...

The A2F-1 Intruder

◀ *Illustration shows artist's conception of Grumman F9F Panther operating in Korea.*

▼ *A2F-1 Intruder with total of thirty 500-pound bombs in clusters of three from wing stations.*

This is the Grumman A2F-1 Intruder attack aircraft—an airborne weapons system developed for the basic purpose of fighting a limited or brushfire war. It was based upon limited war combat experience gained in Korea.

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Operated as an air-to-ground, missile-carrying aircraft, or equipped to carry conventional weapons of all types as well as nuclear weapons, the A2F-1 Intruder provides the U.S. Navy with an all-weather attack aircraft with extended range and heavy weapon capacity. In nuclear attack, the aircraft can come in low under enemy radar . . . too low for effective interference by enemy aircraft and ground fire.

The Intruder provides a new capability in close support missions—provides the nation with a powerful deterrent to prevent war and preserve peace.

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THE SCHOOL SOLUTION AND THE WILL TO WIN. *Divine guidance is about the only help the small-unit commander can expect in the next war.*

Lt. Col. A. E. SEIFERT

"Normally, on what frontage does a tank company team attack?" "How many yards behind the tanks do armored personnel carriers usually follow?" "How many strongpoints can a rifle company organize and defend?"

Anyone with experience at a service school as either instructor or student has heard similar questions. The common answer is equally familiar: that tired old cliché, "It depends upon the situation." All but a certain percentage of students recognize that this is not an adroit dodge to cover up the instructor's lack of knowledge. However, this percentage is large enough to be significant, and it warrants another look at our military philosophy.

Instruction at service schools falls into three broad categories: general subjects, organization and equipment, and tactics. At the risk of stating the obvious, the military student must learn such skills as map reading and first aid. He must also learn the capabilities and limitations of hardware before he can understand how to use it. Characteristics of weapons do not change materially, but their employment is strictly a matter of judgment based on the commander's decision. Thus, the most difficult and important function of a service school is to develop the student's ability to reason, to sharpen his intellectual faculties so that on the battlefield his best judgment will result in a sound decision.

In the future, more than ever before, we will rely on our small-unit commanders—battle group on down—to control and fight their troops. In a battle the success of a division may well hinge upon successful platoon actions. Because of the much-publicized dispersion on the nuclear battlefield these small-unit commanders will be on their own, meeting violent and unexpected situations with whatever competence and efficiency they possess. Such conditions facing our junior officers dictate that we develop a philosophy to equip them to effectively meet their responsibilities.

Certainly not *all* the current precepts being taught at our service schools are bad. The weakness lies in a sin of omission rather than one of commission: specifically, the method of instruction at schools should encourage originality of thought. This does not imply that field manuals are not necessary, but rather that unit commanders—those leaders a cut above the vast audience at whom the manuals are aimed—should be encouraged to seek their own solutions.

Although tactics and strategy have been referred to as a science, they do not possess the exactitude of mathematics. There is seldom only one successful solution to any given situation, and our service schools should recognize this. Military doctrine can be improved only through originality. However, originality is most usually stifled by requiring the student to select one of a number of solutions, or forcing him to decide on a solution which fits the instructor's template. This leads the student to ask specific questions. He is not so much interested in discovering the *best* solution as he is in finding out what solution the school *wants*. And who will guarantee that the "school solution" is the best? It is not at all unusual for a course of action that has been accepted by one department director as the best, to be rejected by his successor. This is further illustrated by the manner in which field manuals are revised. Not those evolutionary revisions brought about by developments in hardware, but changes in basic tactical doctrine born of individual conviction.

As I said, military doctrine can be improved only through originality. Obviously, the advent of a new weapon carries with it the need for new techniques and perhaps new doctrine. What is not so obvious is that new techniques and new doctrine should be sought for existing weapons and organization as well. This is dramatically illustrated by the tank. Because the tank was first used in support of infantry action in World War I, too little consideration was given to using it in massed tank formations until the Germans did so in 1940.

Without question, our service schools should strive to get their students to think. Although a student may never advocate new doctrine or change the old, the fact that his arguments are welcomed will prompt him to voice his opinions. With this attitude he will not shrink from adopting a novel solution in combat simply because it is different. Bold, decisive actions on the battlefield frequently produce what General Gavin has termed "that talisman of success"—surprise. As a thought, it might prove instructive for the student, after he has made his plan, to be confronted frequently with situations in which everything goes wrong instead of the perennial routine academic victory enjoyed by "Friendly Forces." At any rate, the student should be allowed no tactical situations which allows a template to determine his solutions as correct or incorrect.

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is not enough. There is one very important precept which must be inbred in every soldier, and that is the will to win. The determination to succeed must underlie every endeavor. Lack of it results in indecision, irresolute planning, or partial planning predicated upon a number of conditions. The fact that plans are meant to succeed does not mean that unforeseen eventualities will doom them to failure. On the contrary, a steadfast resolve to achieve victory will enable the commander to adjust quickly and adequately to unexpected situations.

Training such as ranger and airborne are excellent for instilling self-confidence and aggressiveness, but these are specialist courses and do not pervade every aspect of an officer's military education. We need something that takes over where these short courses leave off, something that will have lasting application. There is no readily apparent and simple manner in which we can instill determination. There is, however, one basic thing service schools can do to assist in attaining this goal: institute an unequivocal requirement that all instructions be complied with scrupulously. They must insist on the student attempting to solve *all* problems, never permitting a do-nothing attitude. No question should go unanswered, nor should we tolerate such responses as "Call on higher headquarters for help" or "Await further developments." We anticipate that as a rule on the next battlefield divine guidance is about the only kind a small-unit commander can expect. This makes it quite imperative that commanders be independent and utterly reliable. Having been given a mission they must arrive at a sound decision and execute the order with courage and determination. And have every soldier of the command understand that success *will* be achieved! Ignore cries of "Prussianism!" because the will to win falters when results are not firmly demanded. It may seem unnecessary to remind the student that the will to win is a basic ingredient of victory, but the same thought could be expressed about the articles of the Code of Conduct.

I believe service schools must take positive steps to develop original thinking and to nurture the will to win. The first can be accomplished through student debates on current doctrine, from both the affirmative and negative sides. We should emphasize the student's reasons rather than his solutions. As for instilling the determination to succeed, severe penalties should be imposed when the student fails to attempt a solution. Strict compliance with instructions must be demanded. The ultimate aim is to develop in the student that mental agility and toughness he will need on future battlefields. In this healthful academic atmosphere the student's questions will change from "How far?" and "How many?" to "Why?" and "Why not?"

OUR NEW METRIC ARMY. *The booby trap in metric conversion is the loss of judgment based on experience.*

Lt. Col. JAMES J. WHITSETT

I see by recent regulations (ARs 525-8 and 700-75) that, in the interest of cooperating with our NATO allies, the United States Army has adopted the metric system for expression of linear distance. I understand, too, that the Army is under considerable pressure to go completely metric, substituting liters for gallons and kilos for pounds.

Before we start to compute individual rations by the gram and caption a pinup girl's measurements in centimeters, I suggest a look at what we have already lost.

The 1,000-yard grid has yielded to the 1,000-meter grid. The change is a relatively slight one and, on the surface, has done little harm. The great unseen damage is in that it eliminates the possibility of using the statute mile grid or the nautical mile grid.

The booby trap in metric conversion is the loss of judgment based on experience.

Visualize a conference at a division headquarters. An Aggressor armor unit has just been spotted at Smithville as it moves toward the Jonesburg road junction. The distance, readily reckoned by the map grid, is 100 kilometers. But is 100 kilometers 62 miles or 6.2 miles? Or could is possibily be 162 miles? In order to operate in the time-and-space relationship of his everyday life, our division commander will have to mentally convert kilometers to miles. He walked half a mile to high school, not almost a kilometer. He traveled 500 miles from Ohio to West Point, not 800 kilometers. His first car could be kicked up to 75 miles an hour, not 120 kilometers an hour.

Our general knows that 30 miles is a tough hour's ride for a tank, but without an error-prone mental conversion, he is not sure what 100 kilometers means to an armored division commander.

If our deference to the measurement system of our allies is to prove workable, the Army, the Navy, and the Air Force should convert their thinking to the metric system. Speedometers in vehicles should register kilometers per hour, and odometers should be graduated to kilometers. Road signs such as ENDSVILLE-10 should mean 10 kilometers to Endsville, not miles. The Navy should abandon the use of knots and nautical miles. The fact that they fit so nicely into navigation cannot be allowed to stand in the way. If maps are to be metric, we should think metric.

Before taking the next metric step, carefully consider what we are giving up. The lifelong experience of each of us is no small matter. A liter is close to a quart, so conversion is easily handled. But what about our five-gallon can? We have to think a bit to know that it holds 20 liters—or is it 25? A staff car makes 15 miles on a gallon of gas. How many kilometers per liter is that?

It is at the inch-foot-mile relationship that the metric enthusiasts loose their sharpest barbs. But theirs is the enthusiasm of a child with a new toy. We don't think of miles by the inch, nor is a room measured in fractions of a mile. In metric countries, engineer drawings commonly do not have meter, centimeter or millimeter (or their abbreviations) indicated

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after the figures for dimensions. It is assumed the user will know what unit is intended. What we don't realize is that in France, 10 means 10 centimeters, while in Mexico 10 means 10 millimeters. Heaven knows what it means in Germany. Somewhere it probably would be interpreted as 10 meters, and there is a chance it might mean 10 decimeters somewhere else.

A mechanical engineer or a toolmaker has a precise idea of what a tolerance of plus or minus a thousandth of an inch represents. Is there any gain in reorienting their thinking to "two and one-half thousandths of a millimeter?"

It may be too late to retrace our steps on maps, but I wonder if the nautical mile grid was considered. The difference between a nautical mile and a statute mile is not enough to upset experience. The advantage of ready conversion to degrees of latitude is of incalculable value in small-scale map work. One mile to a minute of latitude, 60 miles to a degree. *There* is a conversion you can wrap your mind around. It has stood the test of usage since Mercator's time. I wonder if the Army considered that.

Visualize the experience that complete conversion to the metric system will destroy. Weigh the possible gains. Is the conversion worthwhile? Should we reverse our thinking?

MAKE HIM WHEN HE'S DUE. *One slight inequity can very easily turn a soldier against the Army as a career.*

Capt. RICHARD P. FOX

Joe Epps is about to be honorably discharged. While we interview him we try to be adviser rather than reenlistment officer or military superior. Why doesn't he want to reenlist? Weren't all the benefits explained to him? Joe's reply is not at all uncertain: It took twelve months to get his first chevron, when he could have and should have had it in eight.

Epps has just turned twenty, and the decisions of the young are based on youthful reasoning. One slight inequity during the young soldier's two-year term can very easily turn him against choosing the Army as a career, and most likely will. Any American, for that matter, is sensitive about unfairness.

Why did Epps have to wait so long for his first promotion? He was a good soldier, fully qualified to be private first class after the requisite eight months of active service. When he became due for promotion, his outfit was frantically preparing for an IG inspection. His company commander, his first sergeant, and the rest of his superiors were just too busy to see that Private (E2) Epps was promoted. And so he was overlooked, and for the next four long months no one but Epps remembered or cared.

Joe's unit had no automatic system for such promotion. It relied on someone to ask wasn't it about time to make so-and-so PFC. Unfortunately, the practice is too prevalent. It indicates poor leadership and lack of consideration for those who would be first called upon to fight.

The last time I saw reliable figures, the reenlistment rate among drafted men was less than one per cent. These are the people who do the Army's work: the arduous shovel, sandbag, and rifle-toting jobs. Although they can be replaced through Selective Service, each one we reenlist represents a saving in the cost of training and equipment. In his home town a drafted man who reenlists becomes a walking advertisement for an Army career.

With due respect to the abilities of all our recruiters, I think that the minds of few young soldiers are influenced by the attractions described in reenlistment interviews. They are influenced mostly by the type of leadership they encountered during their service. This is proved by the fact that, invariably, a unit that excels in every activity—an end-product of good leadership—has a high reenlistment rate.

If we paid more attention to these men's promotions we would gain more than a higher reenlistment rate among soldiers in the lower grades. A firm, fair and consistent promotion policy will get almost immediate results in the form of higher unit morale, resulting in better performance.

We need not go into the business of company promotion boards, additional proficiency tests or anything of the sort. All we need is an ordinary calendar pad. Note on the tickler date when each E2 completes eight months of active service. I don't mean to imply that the unit commander should mechanically order the promotion. He should mention the private's eligibility to the first sergeant and the soldier's immediate superiors. He elicits their recommendations as to whether or not to promote before awarding the soldier his first chevron. This practice precludes the "automatic stripe" method which is almost as injurious to morale as no promotion at all.

Once such a simple system is set up, it practically runs itself. It takes only minutes to weigh the recommendations of the private's superiors, balance them against your own judgment, and instruct the first sergeant to publish the order—on the date when the soldier becomes eligible for promotion.

Visualize the effect on Epps if, in the hubbub of preparing for that IG inspection, his superiors had taken the time to think of him, and promoted him on the day he became eligible, even if in the field. No matter how well the rest of the outfit did in that inspection, the small part performed by brand-new PFC Joe Epps would have been as perfect as he could make it. And he got only what he earned.

The same principles apply to promotion to E4. In most outfits the quotas for promotion to this grade are based on the total number allotted by the next higher headquarters. Frequently, in a "loose" company or battery, these promotions go to the bright young PFCs who've managed to draw favorable attention to themselves. But how about that quiet fellow over in the motor pool? He's doing a good job, and has more than the required time in grade. Keep passing him up

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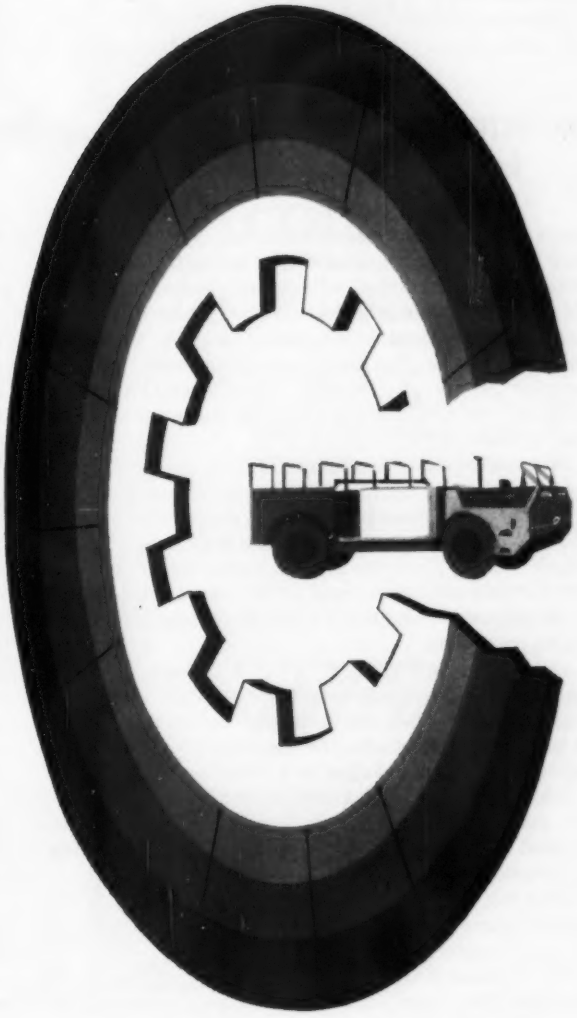

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WASHINGTON, D. C. PEORIA, ILLINOIS

RESEARCH-DEVELOPMENT-MANUFACTURING FOR DEFENSE

and eventually he'll decide to move to greener fields. All other things being equal, appointment to E4 should be based on time in grade.

It's a great event when a soldier is promoted to PFC —so far the greatest in his young life. He's made it! He has proved his worth as a soldier. No doubt he'll write that same night to tell the home folks about it. It takes only seconds to read the order at your next formation. Have the supply people issue his chevrons (there are probably a couple of sets stashed in his wall locker, waiting for the day). Such acts help morale and unit esprit. They make the slowness of promotion more bearable.

However, all efforts to improve your outfit by keeping close watch on lower-grade promotions will be futile if you have PFCs and Sp4s who are inefficient or are disciplinary problems. If the single chevron of the PFC is to be prized, such people should be busted. When a private becomes eligible for E3 and you feel he should not be promoted, be sure you tell him why. Allow him time to mend his ways, then reconsider. Once a soldier knows he is being observed for promotion, he'll produce.

Raising the private when he has earned promotion costs little, but the returns are great in loyalty and job performance. Basically, you are doing nothing but rendering their just dues to those without whom the Army could not function. Furthermore, even those who decide not to reenlist return home feeling they've been treated fairly.

THE ANTIC ART OF BRIEFING. *Is an organization people performing or neat rectangles on wall charts?*

Capt. ROBERT LEIDER

Organizational briefings are my pet peeve. At least once a month I have to sit in an uncomfortable chair facing an easel stacked with more charts than there are cards in a canasta deck. To vary the monotony, sometimes viewgraphs and projectors are used. But always there is the timid, unenthusiastic, pointer-carrying briefer who begins: "Gentlemen, I'd like to acquaint you with our organization. Since we are limited by time . . ."

After an hour—45 minutes if I'm lucky—I leave, once more having been told the obvious: a commander or a chief or a director heads the organization I just met; deputies assist him; he has a staff; an administrative section performs miscellaneous chores; a plans and doctrine section attends to the future; the operating divisions are organized along functional lines; and and so on and on.

And that is *all* I learn. What I do *not* learn is: What makes this outfit click? How do all those rectangular boxes mesh and gear together in performing its mission? What starts the machinery? How does it respond to sudden changes in a situation?

There may be reasons for it, and there may not, but almost all briefings I have attended recently stressed static organizational structure and not living performance. I'll show you what I mean.

Let's say a foreigner has expressed interest in our national game. His introduction to baseball, if done by an Army briefer, would run like this:

"Sir, I would like to welcome you to the New York Yankees. This chart shows how we are organized. At the top we have the owners of the club. Directly under them is the club president. He is assisted by a treasurer and a secretary. At this level broad policy is established. Here also the long-range seating plans for the World Series are formulated. Finally, action is taken on recommendations originating in the two operating divisions.

"The first of these is the Grounds and Bleachers Division. This division is concerned with the upkeep and maintenance of Yankee Stadium and the playing field.

"The second division, known as the Field Operations Division, includes the team, which is our principal mission element. This division is headed by the manager. He is responsible for on-the-field performance and the daily line-up. Three coaches, a doctor, a trainer and a batboy are assigned to his office. The players, represented by this chart, are divided into four functional groupings: the Infielders Section, the Outfielders Section, the Pitchers Section, and the Catchers Section.

"Are there any questions?"

Yes, there might be one: What is the objective in hitting the ball?

The basic definition of fiction, as the art of showing character in action, applies quite aptly to the method of conducting a lively organizational briefing. If in a novel we met a character named Joe Blow and learned that he was 30 years old, married, and had a good job, we wouldn't know much about him. But when the author begins the action, and Joe is made to respond to events—the promotion of a rival, the loss of a child, a call to active duty—he reveals himself to us through his own emotional responses.

It is the same with briefings. Emphasis on compartmentalized organization structure results merely in a picture of a skeleton. Only a doctor could tell whether the skeleton is that of a man or a woman.

If we are to be properly introduced to an organization, we must be permitted to see it in action. Our briefer, of course, will have to apply imagination in making the introduction a pleasant experience. For example, at a technical service installation he might begin, "Gentlemen, our work starts with a requisition arriving at the message center." Then he might trace the requisition or purchase directive or work order through the entire system, explaining the action and interchange of action taken by each section.

In like manner, a tactical unit might be introduced by beginning: "Let us suppose, gentlemen, that 15 minutes ago we received an alert order to move with all our weapons and equipment to an assembly area near Endsville. Our initial point (or IP) time is 0700 hours tomorrow. Initial point means the place at which a foot march or motor movement is begun by

IT'S THE MAN BEHIND THE SCENE WHO COUNTS

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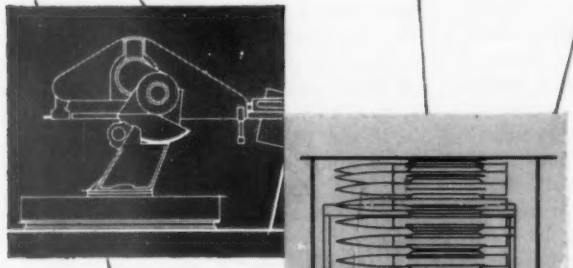

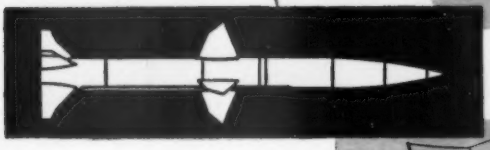

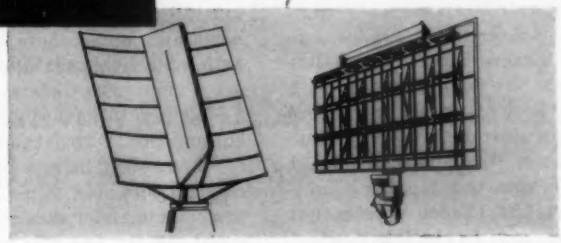

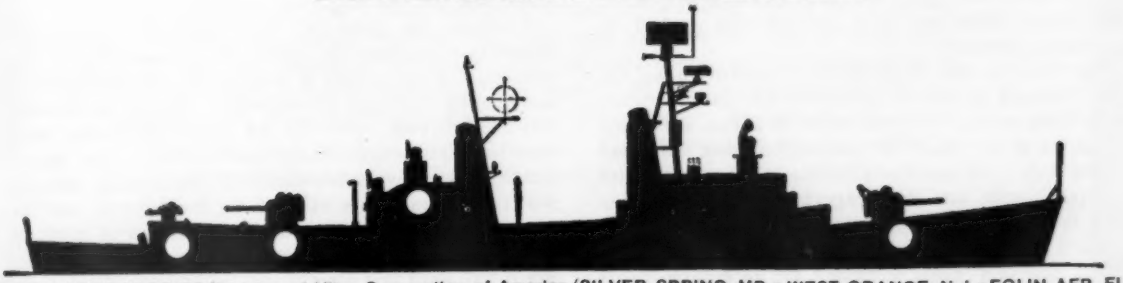

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the successive arrival of the units that finally make up the column." This might be followed by illustrating the actions taken by each element in preparing for the move.

Briefings like this would stress the why and the what in organizations and not the how. Visitors, for a change, would not shift and shuffle in their seats but would open their ears and listen.

WHY ACCOUNT FOR THE EXPENDABLE? *We can effect great savings by eliminating expendable articles from sets*

Maj. THOMAS T. JONES

One aspect of supply management that can stand improvement is the composition of equipment that comes in sets. I believe we can effect great savings by eliminating all expendable articles from sets: twine, rope, pencils, buckets, pads of paper, sandbags, chalk, and what have you. It seems to me that only the unit first issued it benefits from a complete set. This outfit fails to replace used or lost pieces, and the commander who next acquires what's left of the set inherits a permanent headache in trying to maintain it at full stock.

A good example of the needless waste in money and time becomes evident at the approach of the annual IG inspection. To satisfy the IG and the regulations, you must produce either a Form 1546 or a want slip from the self-service supply store to show the things have been ordered. I can understand why this is necessary in overseas combat units, even though in many instances the number of articles prescribed serves only to impose a storage and paperwork burden on unit commanders. But why in CONUS training units?

To require full stocks of all expendable components in sets is to place a tremendous burden on all supply people. How can you justify ordering and storing hundreds of things you cannot possible use in the foreseeable future? They get lost or damaged, and must be replaced before the next IG inspection. Why couldn't a depot store the things needed by the area it serves, ready to be shipped at a moment's notice if a unit is alerted for combat or overseas service? Surely the missing components could be in the hands of troops before a training division could be brought to strength for movement overseas.

I'll illustrate from experience. In an armored engineer battalion each squad's pioneer set is supposed to include five six-inch emery wheels. That's 45 per line company, 180 in the battalion. We estimated that with our basic training mission, each company might use one grinder in three months. Just before the annual general inspection we put in a Form 1546 to fill out shortages we had inherited from the departing unit. About 30 days later we got 180 10-inch wheels, not six-inch ones. Back they went, and Uncle Sam was out some money unless we could quickly turn up 180 10-inch bench grinders.

Then there is the business of substitution by the depot through guess or intuition. On the 1546 the name of the article or the set must be given. Thorough familiarity is necessary for anyone to know what can be substituted for a certain article in many sets. Not all depot clerks are that experienced. One solution would be for the depot to enter on the returned 1546 the stock number and name of the proposed substitute, so that the user could verify it as acceptable. This would save purchasing, shipping, and reshipping of white elephants.

The inauguration of the efficient self-service supply centers has made obsolete the inclusion of many expendable components. How can we justify the construction in tool chests of compartments for holding pads of paper, balls of twine, pencils, or sandbags? I even saw one chest that had a compartment for a water bucket. How many outfits don't already own many buckets? They can be purchased at any self-service center, so why include them in a set? You'll even find some units are authorized two or three sets of articles they already own. An outfit might have to keep on hand or on order 36 hammers, when six or seven would be more than enough. How much easier and cheaper to buy the few really needed things from the post supply center.

The last time I handled mechanics' sets, every tool in them could be had from the self-service supply store. Our vehicles being in limited storage, we had little use for more than 40 sets. Just the same, we spent hours accounting for those tools, by sets, keeping them in shape to satisfy the IG, and constantly ordering missing ones we didn't need. The regulation says a certain number must be on hand regardless of local practices. Some argue that these common articles, even if they aren't needed, must be kept at authorized stocks against the chance of being needed. If the need should suddenly arise, most of them could be procured locally on short notice. Of course, some can't be eliminated, such as chemicals in water purification sets.

We could extend this practice to overseas combat units. Based on their own experience, company and battalion commanders could decide what expendable articles, within maximum allowances, must be in each set. Commanders are responsible for the performance by their units of assigned missions. They know what equipment they need to do a job. This might be heresy to those who believe in centralized control of unit commanders, but when we assign an officer as company commander don't we assume he is able? The IG could see the list any time.

I believe the users are best qualified to decide the numbers of expendable articles they need. Expendable components authorized in certain sets are worthless in some units, because of scattered stations or because local conditions vary. If we give small-unit commanders the responsibility and authority for establishing their own allowances of expendable articles, within the maximum allowed by the catalog, we can save thousands of dollars and many hours of work by not keeping track of pencils, paper and twine that are never used but always get lost.

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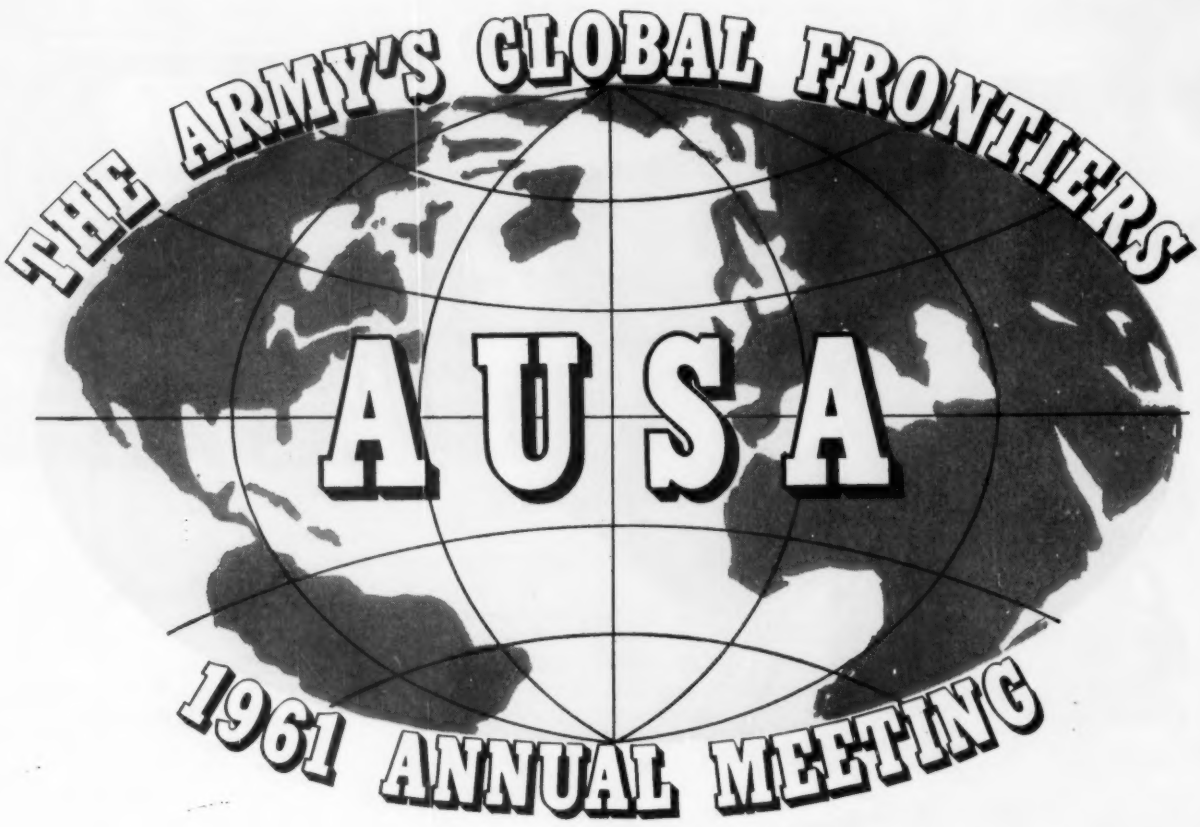

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WASHINGTON, D. C.
SEPTEMBER 6, 7, 8

ADVANCE REGISTRATION

AUSA Members may register in advance during the period 1 June through 1 September 1961. The coupon on the next page has been provided to assist you in registering in advance. Please complete, detach, and mail the form to AUSA promptly, since reservations are made on the basis of first come, first served. Advance registration and all ticket purchases for the social functions will be confirmed by mail. Registration badges and tickets ordered for the social functions will be available at the AUSA Advance Registration Desk any time after 8:00 a.m., Tuesday, 5 September.

Advance registration may be accomplished by completing and mailing the coupon to AUSA. Please show full mailing address (home or office), whether a civilian or military registrant, and the number of tickets wanted for each event. *Payment in full for registration and tickets to social functions must accompany the advance registration application.*

The deadline for acceptance of advance registration applications is 1 September 1961.

ATTENDANCE AT FUNCTIONS

The prices for registration and tickets required to attend the social functions are listed on the coupon below. Military personnel of the Armed Forces are eligible to register at the military rate of $2.00. Registered members may bring guests, including ladies, to the Luncheon on Thursday, 7 September, and to the General George Catlett Marshall Memorial Dinner on Friday, 8 September. The Reception on Wednesday is limited to registered members of AUSA only.

REFUNDS FOR CANCELLATIONS

We cannot make refunds for Reception or Annual Luncheon cancellations received after 31 August or for George C. Marshall Memorial Dinner cancellations received after 25 August.

Refunds for tickets requested but not available will be made after the Annual Meeting.

HOTEL RESERVATIONS

Hotel reservations must be made directly to the Sheraton-Park Hotel, Washington 8, D. C., or hotel of your choice. Military rates are available at the Sheraton-Park Hotel to persons in uniform and those who present active duty ID cards when checking in. AUSA cannot accept requests for hotel or military billet reservations.

MILITARY QUARTERS

Military personnel desiring accommodations at Army Posts may write to Headquarters, Military District of Washington, Att.: G-1, Washington 25, D. C., by 31 August.

1961 ANNUAL MEETING

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Make Checks Payable to

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Function	Quantity Desired	Unit Prices Military **	Civilian	Amount
Registration	.....	$ 2.00	$ 3.00	$.....
Reception *	.....	4.50	4.50	.....
Annual Luncheon * . .	.....	5.00	5.00	.....
George Catlett Marshall Memorial Dinner * .	.....	12.50	12.50	.....
			TOTAL:	$.....

* Separate tickets are required for each social function.
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ARMY irons in the fire

AIRBORNE ON WING OF CLOTH

Army sees promise in flexwing concept developed by NASA; Ryan builds test model

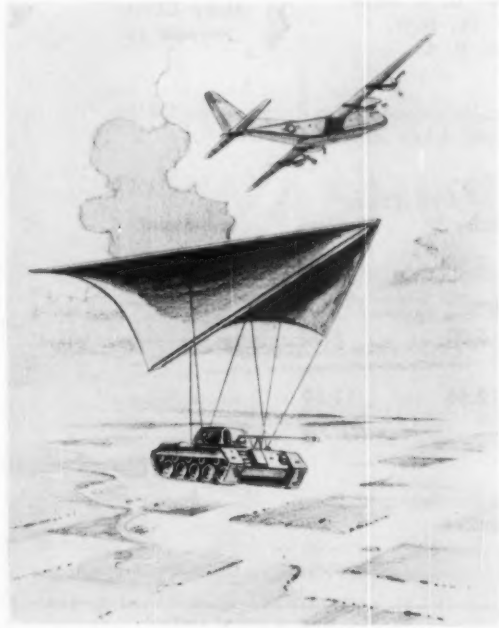
J. S. BUTZ, JR.

The Army's chances of becoming completely air-mobile have risen in the past few months. A radically new type of aircraft that is as cheap and simple as a truck is now a distinct operational possibility. In addition to its low cost the new type offers promise of meeting battlefield requirements for short take-off and landing on rough fields and for very slow flight at tree-top level.

A unique feature of the airplane is a flexible, kite-like wing made of cloth. The practicality of this wing has been demonstrated through almost 15 years of model tests by its inventor, Francis M. Rogallo of the National Aeronautics and Space Administration's Langley Research Center. The Ryan Aeronautical Company has a contract from the Army's Transportation Research Command to test a man-carrying version of the new airplane to show just what the cloth wing can do in full-scale flight.

It would be difficult to imagine a more inexpensive aerial vehicle than Ryan's "flexwing" airplane which has been flying for several months. Its main body consists of an open truck-bed type platform to carry the payload. The cloth wing is supported above the body by a light truss structure. A reciprocating engine is mounted in a pusher arrangement on the back end of the flat body while the pilot sits on the front end. The vehicle has a lightweight wheeled landing gear.

It is hoped that the very simple arrangement of the flexwing vehicle will not have to be modified and complicated to meet the requirements for field use. If the craft can remain as mechanically simple as it is now, there is good reason to believe the Army could afford to operate it in much larger numbers than any other type now known. On the basis of available test data there is no feature of the airplane's performance, maintenance, requirements or cost which would prevent mass use. It is extremely stable, easier to fly than a conventional airplane, consumes a fuel at a low rate for its payload capacity, and has a simple struc-



Air drop gliders. Artist envisions use of flexwing gliders for low-level delivery of cargo and equipment. Because the flexwing possesses great control facility, these drops can be made by stand-off aircraft and can be guided into selected drop areas.

Manned combat vehicle. A power version of the flexwing as envisioned by an artist suggests simplicity, stability and ease of control. Relatively untrained "truck drivers" can operate the vehicle to deliver fighting men where needed, lay wire or make surveys.

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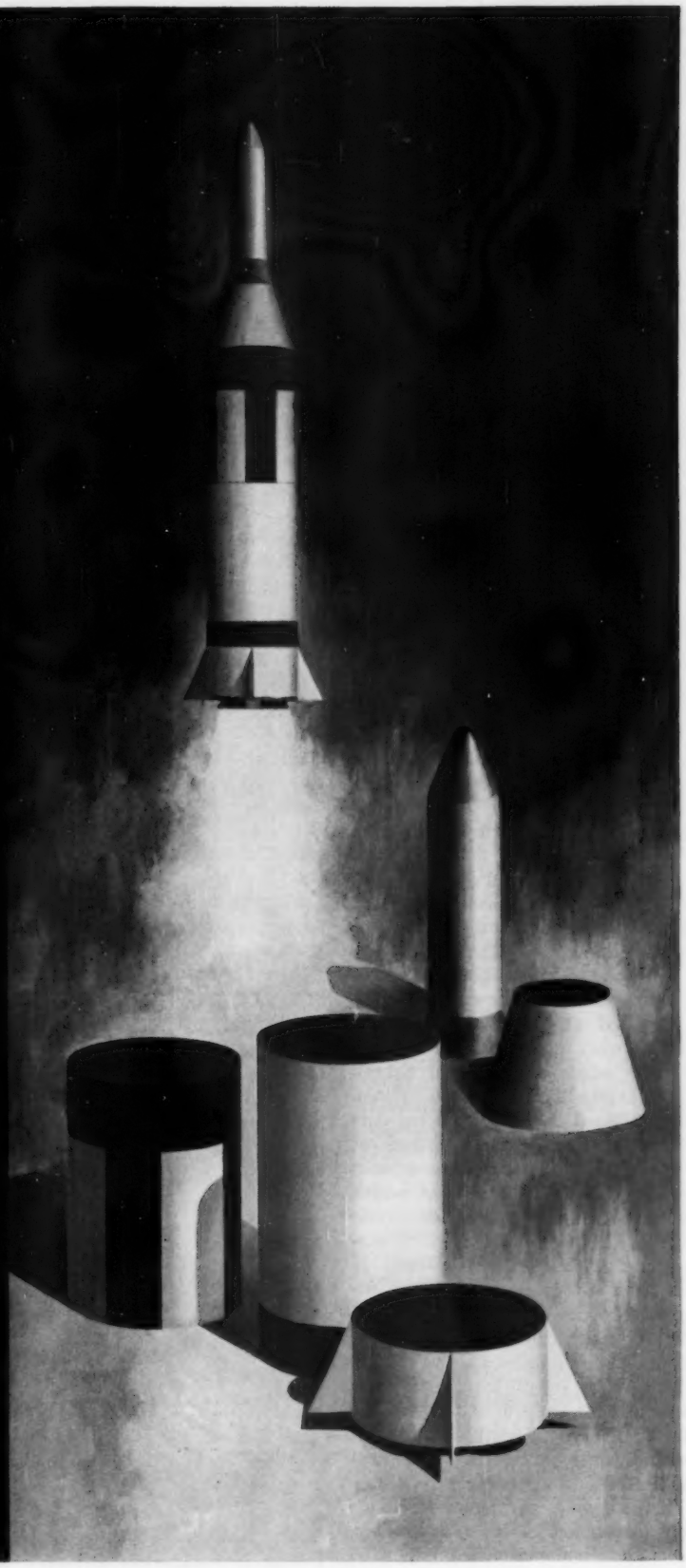


ture, power plant, control system and accessory group.

It is expected that it would serve as an 80- to 100-mph aerial truck that could stay aloft four or five hours on one fueling. The lightweight flexible wing will allow it to carry a much larger payload for its weight than any other type of aircraft. Its payload probably will be more than 50 per cent of its gross weight compared to less than 30 per cent for most solid-winged transports.

One of the most unusual features of the flexible-wing airplane is that its control system somewhat resembles that of a blimp. Technically, the flexwing airplane is said to have a two-degree-of-freedom control system, which means that it cannot bank in the normal sense. It can climb and dive and turn right and left but it cannot hold a sharp bank or roll over. This is one of the main reasons why the flexible wing aircraft is simpler to fly than the conventional airplane.

Even though it is easier to fly, the flexwing vehicle apparently will be as maneuverable as an airplane. Its ability to turn sharply and maneuver around obstacles at low speed has been demonstrated.

The mechanical details of the flexible wing and its control system give a good indication of its maintenance potential. There are only three solid members in the triangular-shaped flexible wing. They are connected at the wing's forward facing apex and serve as its two leading edges and its center keel. The flexible lifting surfaces balloon out between these three poles during flight. Another function of these poles is to serve as attachment points for the cables which hold the wing at a fixed angle relative to the body. At least four suspension cables will be needed in addition to the tripod mast attached to the wing's keel member. On the flexwing test vehicle Ryan is also using a spreader bar to hold the leading edge and keel poles apart. This improves the wing's flight efficiency slightly and the bar also absorbs part of the structural load from the lift force.

Other wing arrangements with no suspension cables are possible. But for airplanes cruising at 100 mph or less the cables probably will be the lightest arrangement.

Several types of material may be used to make the wing's flexible membrane. The most important requirement is that the material not be porous. The aerodynamic efficiency of the wing goes down rapidly as the rate of air leakage from the bottom to the top surface is increased. Showing up well in tests are a non-porous dacron sailcloth and a nylon ripstop parachute cloth coated with Mylar plastic film.

No tail is required to stabilize or control the flexwing airplane. The conventional airplane tail with horizontal and vertical surfaces can be eliminated. Wind tunnel tests, radio controlled models and Ryan's full-scale airplane have shown that the flexible wing is extremely stable by itself. It does not flutter or "breathe" under any flight conditions and has no tendency to fold up or collapse during turns.

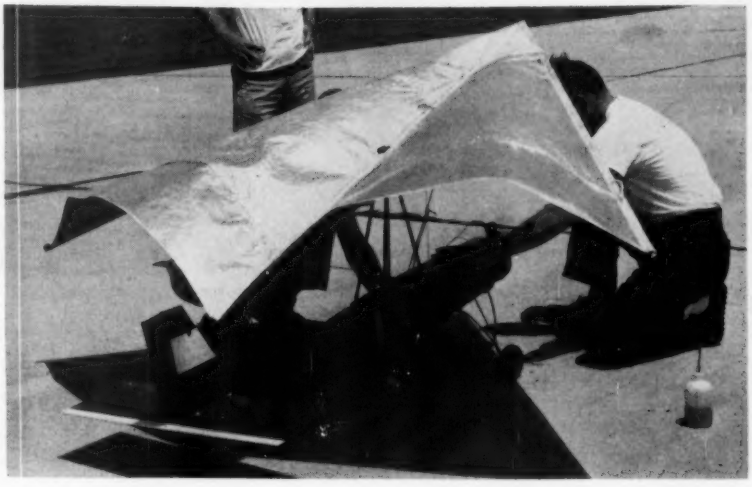
The wing is controlled by reeling its suspension cables in and out. This alters the tilt of the wing and changes the direction of its lift force. As the lift force is tilted, the flight path of the airplane changes. For example, if the suspension cables on the right side are shortened and the ones on the left side are lengthened, the wing and its lift force are canted to the right. This pulls the airplane into a right turn.

Climbing is accomplished by tilting the front of the wing up to a higher angle of attack. The forward cable is let out at the same time that the rear cable is reeled in. Descent is handled in the reverse manner. It is possible to make climbing and descending turns, but the flat body of the vehicle will remain almost horizontal. It will not tilt through large angles as the floor of a transport airplane does. This "pendulum effect" of the body hanging straight down below the wing on cables is one of the main reasons for the fine stability of the flexwing airplane.

In their simplest form the pilot's flight controls on a flexible wing airplane could consist of nothing more than a throttle and two wheels. One wheel would control the nose-up and -down position of the wing and regulate climb and descent. The other would adjust the wing's lateral cant and turn the airplane. The control wheels could be attached directly to a drum on which the suspension cables were wound. The cables to the right side of the wing would be wound so that they were taken in as the ones to the left side were played out, and vice versa. The same type of winding arrangement would be used for the fore and aft cables.

Current work indicates that this simple control system could be used

Prop-driven model aircraft serves as "test bed" for flexwing at NASA's research center, Langley Field, Va. NASA is investigating flexwing for possible use in recovery of early booster stages, dropping of cargo and personnel, emergency wings for VTOL aircraft and as a reentry vehicle capable of making spot landings at moderate speeds.



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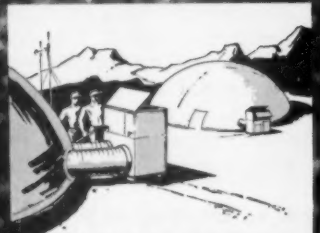
Trailer mounted refrigeration unit, 5 tons capacity



Inflatable shelter refrigeration unit, 7½ tons capacity (unit shown above)

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Systems and Components for: AIRCRAFT, MISSILE, SPACECRAFT, ELECTRONIC, NUCLEAR AND INDUSTRIAL APPLICATIONS

for flexible wing airplanes weighing much more than 10,000 pounds. Power boost controls would be needed only on the largest vehicles.

From the piloting standpoint, one of the best features of the flexible wing is that it is very difficult to stall. The nose of the wing can be tilted upward safely to large angles of attack so that the wing's keel member is raised to an angle more than 30 degrees with the horizontal. The wing will mush along and slow the airplane down when raised to these high angles. But it will not lose its lifting power abruptly and stall as the normal airplane wing does. In pilot's parlance, this makes the flexible wing airplane "very forgiving" and safe to fly at slow speeds at tree-top level.

Naturally, there are some penalties to be accepted with flexible wing airplanes. Their advantages of high payload, simple controls, and so on, must be bought by compromising performance in other areas. In this respect they are no different from any other land or aerial vehicles.

The few performance penalties which accompany the use of the flexible wing stem primarily from the fact that it has poor lifting efficiency compared to conventional rigid wings.

The poor lifting efficiency has two important effects on design. First, the flexible wing's area must be very large to get the landing speed down to 60 mph. For a given wing area, a flexible wing will lift less than 45 per cent as much weight as the wing of a Cessna L-19 Bird Dog. Therefore, a flexible wing airplane weighing about 4,000 pounds would require a wing area around 1,000 square feet if its landing speed was about 60 mph. This compares to a wing area of approximately 250 square feet for the average lightplane of the same weight.

The only way to bring the landing speed of a flexible wing airplane down even lower is to increase wing area while holding the gross weight constant. This has the basic disadvantage of making the airplane more like a kite and therefore hard to handle in high winds. A major objective of the Ryan test program is to determine just how much wing can be put on an airplane of a given weight before it becomes excessively difficult to land in strong cross winds.

The second effect of the flexible wing's poor lifting efficiency is to reduce cruising speed and range below that attainable with conventional lightplanes. Most lightplanes can develop a lifting force at least 15 times greater than the drag force which acts against their forward motion. During cruise this means that the propeller thrust has to equal less than one-fifteenth of the weight of the airplane. As a result, the engine's horsepower output can remain relatively low and it does not consume much fuel.

By comparison, the flexible wing airplane can develop a lift force only about five times greater than its drag force. Its propeller thrust must be equal to about one-fifth of its weight during cruise. Since the engine power required to produce this thrust increases with speed, the flexible wing airplane must cruise at a fairly low speed to keep its engine size within reason. For example, a 4,000-pound flexible wing airplane would require a 250-hp engine to cruise at 90 to 100 mph.

Logistically, the flexible wing airplane is still attractive even though its cruise speed is low. Since its payload is about twice that of a conventional airplane it will compare favorably on the basis of a ton-mile freight-moving capacity per pound of fuel expended.

Use of the flexwing concept to reduce landing speeds is tested on a model in NASA wind tunnel at research center at Langley, Va.

The utility of the flexible wing extends far beyond the small battlefield airplanes just discussed. NASA has contracted with Ryan to study the problem of designing flexible wings to recover the Saturn booster and other payloads weighing as much as 120,000 pounds. On these systems the wings would be stowed in long slim containers on the side of the boosters while they were under power. When the booster had burned out and dropped away from the upper stages of the rocket vehicle, the wings would pop out and allow it to make a slow and controlled descent to a predetermined landing spot. It seems possible that this large booster recovery wing could be adapted to a powered platform for use on an atomic battlefield. More than 70 feet long, this wing could support a heavy tank or a company of infantry with most of its equipment.

Flexible wings may have large loads slung under them and then be towed like gliders behind fixed-wing airplanes and helicopters. Ryan estimates that the payload of a helicopter may be increased six times by towing such gliders. The inherent stability of the flexible wing makes it unnecessary to have pilots aboard these gliders.

High-speed aircraft may be assisted by flexible wings during take-off and landing. When thus used, the aircraft would have small fixed wings sized to give good performance at high speed. The flexible wings would be stowed in a container on top of the fuselage. They would be deployed at low speeds and retracted during the high performance portion of the mission.

While an extremely wide variety of application is conceivable for the flexible wing, the one that seems most promising for the Army is the small battlefield transport. Current test information makes it appear that these cloth-winged airplanes could be used to create the first truly airborne divisions with transport organic to battalions or companies. It would then be possible to mass and disperse rapidly during atomic combat in accordance with the most modern tactical doctrine.

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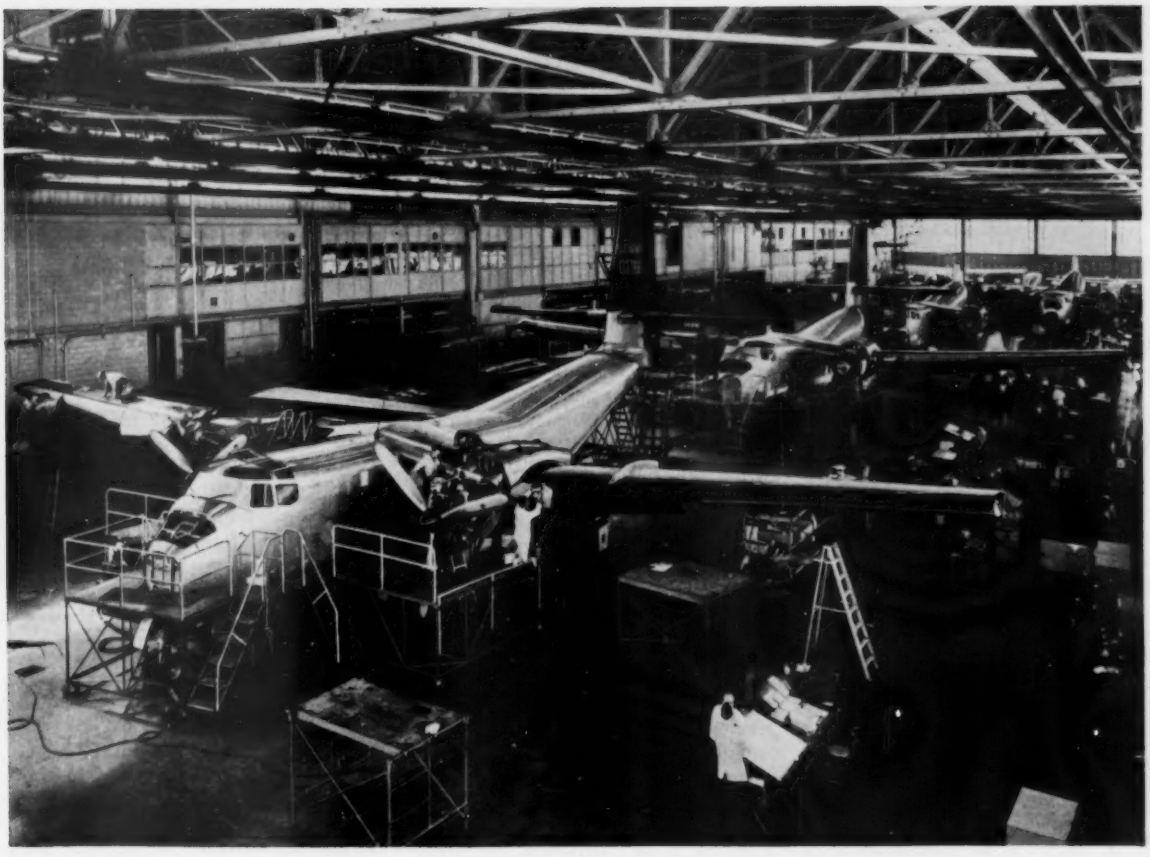

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ARMY books

VITAL ISSUE OF ARMS CONTROL

THE NATION'S SAFETY AND ARMS CONTROL. Arthur T. Hadley. The Viking Press. 160 Pages; $3.00.

Reviewed by

COL. JOHN E. DWAN, II, who is on the faculty of the Army War College.

The subject of arms control is getting a great deal of attention these days in official circles as well as among scholars and journalists. It is more complex than disarmament, and is surely one that soldiers should understand. It will be with us for a long time, and the policy positions our government assumes on the issue undoubtedly will have to be related in the most intimate way with our basic national military strategy.

Hadley's book, the latest on the subject, is aimed at a broad audience. It will give the soldier who would like a comprehensive, nonsense survey of the ins and outs of arms control a fine opportunity to grasp the fundamental issues and form his own opinions.

Hadley makes its clear at the outset that arms control is not synonymous with disarmament; its objective is greater national security, not necessarily a reduction of arms. He starts from the premise, now generally accepted by thoughtful men, that thermonuclear war between the U. S. and the USSR would be a calamity from which neither could derive victory in any meaningful sense of that word. The core problems, he points out, are how to prevent such a war, and if it starts, how to minimize its destructive effects.

We now exist under a precariously unstable balance of terror which resulted, Hadley argues, from a number of factors. Among them are the vulnerability of our "soft" strategic nuclear deterrent which, no matter what we say, really appears to be a first-strike force since it can be truly effective only if it attacks first, and being vulnerable, tempts a Soviet first-strike; the danger of accidental war in which the victim, due to the vulnerability of his nuclear forces, could not afford the pause to determine the true situation, and would feel obliged to deliver a massive attack while he still had substantially undamaged weapons systems; a scientific achievement that would give one side a decisive advantage; lack of adequate civil defense programs; the danger of a small war expanding into a major nuclear war; and the proliferation of nuclear powers in the world.

These facts of life in "the kilomegaton decade" render deterrence highly uncertain; if deterrence fails, they offer little hope that the intensity of violence could be restrained. Moreover, Hadley contends, overemphasis on our nuclear capability has reduced to an unacceptable degree the U. S. ability to deter less than major aggressions through the use of "conventional" forces equipped with high-explosive weapons.

The way to correct this situation and to enhance our security, Hadley suggests, is to attempt to work out an arms control arrangement with the Soviets that would stabilize the delicate balance of terror. This is a realistic expectation, he thinks, because such an objective would also be in the USSR's self-interest. Both sides would work toward building secure nuclear deterrent forces so limited by agreement in size and composition of weapons systems, that each side would clearly have a second-strike capability but could not successfully strike first. Such an approach would stabilize the strategic nuclear balance, to the advantage of both sides. While it would limit the nuclear race, nevertheless it would undoubtedly require the U. S. to maintain larger conventional forces, since the East-West struggle would continue, but at lesser degrees of violence. [A portion of the book dealing with conventional arms was published in the April 1961 issue of ARMY.—THE EDITORS.]

Hadley suggests that the proper objectives of U. S. policy should be secure weapons and nuclear-free replies to less than major aggressions. These, he feels, are first steps that we ourselves could take towards arms control since they would allow us to assume a posture from which we could afford to negotiate limitations on nuclear weapons systems. Among the decisions we would have to make is a determination of how many nuclear weapons and how big a strategic nuclear force are enough. We cannot do it if we stand on the premise that more is always better. Hadley also makes it clear that so long as we have vulnerable nuclear forces and cling to a counterforce strategy, we will perpetuate the instability in the strategic equation that endangers our safety. These are provocative ideas that demonstrate how the problems of arms control tie directly into our basic national military strategy. In this respect alone the book performs a distinct service.

Hadley's over-all treatment of subjects is so excellent that one hesitates to mention two additional points he might have included: the likelihood that the Soviets would in fact understand the extent of their own interest in arms control and actually negotiate an arms control agreement in good faith; and the possibility that the Soviets (more to the point, the Chinese Communists, who some day will become a nuclear power), consider the very instability of the balance of terror an advantage—albeit a risky one—in the desperate game of achieving world domination. Do they perhaps prefer to perpetuate an international environment of fear that in the long run will prove more demoralizing to the democratic countries than to their own monolithic states?

This is not meant to detract in any way from a first-rate study and lucid treatment of the vital issue of arms control. Every soldier must read this book if he is to bring himself up to date on this important and timely subject.

SECURITY IN THE NUCLEAR AGE

THE NECESSITY FOR CHOICE. Henry A. Kissinger. Harper & Brothers. 370 Pages; Index; $5.50.

ON THERMONUCLEAR WAR. Herman Kahn. Princeton University Press. 651 Pages; $10.00.

Reviewed by

COL. WILLIAM R. KINTNER, Deputy Director of the Foreign Policy Research Institute.

Dr. Kissinger's incisive analysis takes on added significance since his appointment as consultant to the President in the realm of affairs discussed so persuasively in his book. Parts of *The Necessity for Choice* are essays that have appeared as articles during the past several years on subjects ranging from arms control to the relation of the policy-makers and the intellectual. Its most significant contribution deals with the host of increasingly vexing problems concerning U. S. policy toward Europe, primarily NATO.

Dr. Kissinger eloquently points out the value of NATO to the United States. If NATO is dissolved, he trenchantly argues, the principal objective of Soviet strategy, the last remaining obstacle to the "march of history," will have been removed. Hence the key premise of U. S. foreign policy must be the unity of North America and western Europe, the two centers of power in the non-Communist world.

Kissinger sorts out the policy alternatives open to the U. S. in its effort to strengthen NATO, and I think he arranges them in the appropriate order of priority. He begins with the premise that the rapidly approaching mutual invulnerability at the strategic level between the U. S. and the USSR makes it more imperative than ever to create within NATO means for the local defense of western Europe. The idea that NATO shield forces need only be a tripwire to commit the U. S. Strategic Air Command is a concept rapidly reaching zero in terms of credibility to both the Soviets and our NATO allies. Dr. Kissinger contends that we must have a substantial capability to respond initially to Soviet probes without automatic resort to nuclear weapons. This recommendation is particularly significant coming from one who, since the publication of his *Nuclear Weapons and Foreign Policy* (1958) has been regarded as the "high priest" of U. S. nuclear strategy.

Dr. Kissinger also points out, and wisely, that merely to provide Europe with a substantial conventional capability is not the complete answer to NATO's current ills. NATO without its own nuclear capabilities—both tactical and strategic—will still be psychologically and militarily at the mercy of a nuclear-armed Soviet Union in the event America is unwilling or unable to bring its nuclear capabilities into play. Under the current arrangement, our NATO allies can veto our use of nuclear weapons. They cannot compel us to employ them.

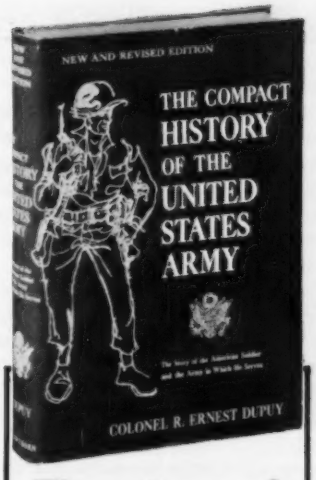
To rectify this condition, the author, as a first step, proposes that the U. S. make available to NATO part of our own nuclear arsenal. Subsequently the European members of NATO annually would review their nuclear needs, and the U. S. would contribute the weapons required by the alliance. Such a policy will give the U. S. some control over the proliferation of weapons—a control which would not be present were we to adopt the alternative of providing independent national nuclear deterrents to those NATO members who want them. He rejects the concept of independent national nuclear deterrents on the grounds that countries possessing such capabilities will still be vulnerable to Soviet blackmail. Further, such national nuclear forces also will run counter to the primary objective of converting NATO-in-Europe into an integrated local defense organization.

Dr. Kissinger argues that, failing to achieve a transformation of control over nuclear weapons in the NATO alliance, our next best policy is to encourage NATO to create its own powerful nuclear deterrent. He argues that the Soviets will not initiate a nuclear exchange with either the U. S. or the Europeans separately because a full exchange with one or the other would leave either the United States or Europe residually superior.

In his last chapter, on leadership, Dr. Kissinger stresses the need for the type of intellectual innovation which marks every page of Kahn's *On Thermonuclear War*. By helping to force into the open the debate over national strategic choices, Kahn nurtures the capacity for real innovation which Kissinger holds to be essential to our future survival.

On Thermonuclear War is one of the first public efforts to present to the American people the alternative policy and strategy choices for dealing with security in the nuclear age.

Kahn has one major conclusion: nuclear war is thinkable and the



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U. S. had better start thinking more profoundly about it. He says that the source of many of the erroneous ideas concerning nuclear warfare are those who seek to escape from the world in which nuclear weapons have become part of reality by closing their minds and eyes to their existence. Kahn rejects the concept that no defense is possible in the modern age.

To avoid catastrophe, he argues eloquently that we should make real preparations for thermonuclear war to convince the Soviets that any decision on their part to strike us would be irrational. A capability to fight and survive a war requires that we make responsible efforts to "protect life and property if a war breaks out." If we continue to accept the concept of mutual nuclear suicide, Kahn argues, the morale and efficiency of our armed forces, let alone the civilian will to support the government in a crisis, would be seriously affected.

To achieve such readiness, Kahn states the measures we must take in air defense, civil defense and related fields to render a thermonuclear war less likely. In this connection, the author's treatment of the value of an antimissile defense seems weaker than need be. In a brief economic analysis Kahn demonstrates that the U. S. has the capacity to buy the defense it needs.

Kahn is not at all happy about the prospects of an unending arms race. He believes that "Both sides today have common interests . . . in regulating their mutual conflicts." Yet the Soviets may see conflict opportunities where we see only dangers, and the world may have to live with an unstable arms race for a long time.

It is regrettable that because Kahn has chosen to speak out with candor regarding the inescapable realities of the thermonuclear age, he has been subjected to unwarranted and illogical attack. No surgeon is condemned for diagnosing cancer in order to cope with it, yet many supposed students of foreign policy attempt to prescribe treatment for international conflict by ignoring one of the most potent forces shaping the world we live in. These attacks might have been mitigated had Kahn chosen to state explicitly his deep personal commitments to the great humanitarian values of Western civilization. For anyone who knows Kahn is aware that it was the necessity to defend these values that prompted him to undertake this monumental effort.

Both Kissinger and Kahn have made vitally important contributions to modern strategy. The products of their labors will be invaluable to those who wish to understand or influence U. S. policy and strategy in the sixties.

WHAT IS A CIVIL WAR?

WAR FOR THE UNION. Vol. II: War Becomes Revolution. Allan Nevins. Charles Scribners Sons. 557 Pages; Maps; Index; $7.50.

Reviewed by

BRIG. GEN. WILLARD WEBB, past president and one of the founders of the D. C. Chapter of the Civil War Round Table.

The subtitle of this book adequately summarizes it. One might ask, What is the definition of revolution? When is armed conflict between the citizens of the same country a revolt, and when is it an insurrection, a riot, or a revolution? The war of 1861-65 has been variously labeled, and there are some who insist rather vigorously that it be called the War Between the States rather than the Civil War. In other circles it was called the War of the Rebellion; certainly it started as a rebellion, and as Professor Nevins points out, it evolved into a revolution.

A peculiar phenomenon of this war was that the Federal side, whose basic mission was to preserve the Union, became the revolutionary force. Most historians, I believe, would concede that the issuance of the Emancipation Proclamation was its greatest single event. In all wars economic stimulation begets social revolution.

Professor Nevins is essentially a political historian, and he is not concerned with dramatic descriptions of the actual engagement of troops, but with the strategic and the political (perhaps they are the same) importance of those engagements. The social-political interest is always present in Professor Nevins's account. It is therefore to be expected that this volume, which starts at the new year of 1862 and concludes just after Chancellorsville, should show Allan Nevins at his best.

He sets forth not only the enormous significance of emancipation, but the irresistible change in the whole social structure of the United States which occurred during this period. As he points out in one place: "Measure after measure that had been unobtainable so long as Southerners held their seats in the Congress, went on the statute books. The land for the landless, higher tariffs, the National Foundation for Colleges of Agriculture and Mechanical Arts, the Pacific Railroad, an agriculture bureau or department were gains securely seized; in the meantime, blow after blow was leveled at slavery. The steps taken range from the establishment of a new arsenal at Rock Island to recognition of the black republics of Haiti and Liberia. The mood underlining congressional action was sometimes sternly realistic, sometimes idealistic, sometimes both. It was realism to issue $3,000,000.00 in greenbacks and make them legal tender, it was idealism to create schools for colored children in Washington and Georgetown, all the Pacific Railway was romance and realism combined."

In his preface, Professor Nevins concedes that battles cannot be ignored in writing the history of the war; and he does not, but he gives to them the space necessary to fit them into the pattern of national change. His long and distinguished contribution to the bibliography of American history is well known. As is to be anticipated, this is a well-written, thinking book which is more than a mere narrative of the campaigns and engagements of the two armies.

SMALL UNITS IN JUNGLES

SHOOT TO KILL. Brig. R. C. H. Miers. Faber & Faber. 213 Pages; Illustrated; Maps; Index; 18s.

Reviewed by

COL. ROBERT F. COCKLIN, AUSA's Director of Public Relations.

In 1955 Lt. Col. Richard Miers, commanding the 1st Battalion, South Wales Borderers, took his unit out to Malaya to join in the battle to stamp out Communist terrorists. This book is a thoroughly excellent and highly exciting ac-

count of his experiences there.

Tracking down wily native terrorists in the steaming and trackless jungle is no tea party. Apparently Miers and his battalion carried out their missions not only with dispatch but with a verve and sense of exhilaration which are always associated with outfits which do well the difficult and dangerous.

The villain is Ming Lee, a cunning terrorist, whose band of brigands matches wits with Her Majesty's finest for a good while before being captured. Soldiers of all armies will enjoy vicariously the thrill of the chase which Miers imparts so well.

The story is a most interesting one—full of excellent small-unit actions and individual feats of derring-do that are not often matched by novelists. Moreover, it is clearly and amusingly told. Some excellent photographs, a good map, and a complete index are included.

HISTORY OF ARMOR

ARMOR: A History of Mechanized Forces. Richard M. Ogorkiewicz. Frederick A. Praeger. 475 Pages; Illustrated; Index; $7.95.

Reviewed by

LT. COL. WILLIAM GARDNER BELL, a former editor of *Armor* Magazine.

Despite armor's position in the military picture and its record on far-flung battlefields—to say nothing of its obvious potential for the nuclear battlefield—professional literature on the subject, at least in America, has gone begging. I know of several outstanding manuscripts by highly qualified authors, that have been ignored by many publishers over a long period.

Mr. Ogorkiewicz's history enriches our literature on armor. An engineer and long-time student of armor, he has created a work of substance done in fine expository prose.

The first part is a general survey of weapons and mobility, a sketching-in of the critical first 30 years of the tank's evolution, and an appraisal of armor's suitability for nuclear warfare.

Next comes organization and methods, with chapters on British, French, German, U. S. and Soviet formations, and back-up chapters on tactics and logistics. The third section reviews tank development in nine countries, adding to the Big Five Italy, Japan, Poland and Sweden. The fourth deals with equipment and its problems: design, production, components, engines, and ancillary vehicles.

Armor organization, equipment and employment have varied widely from one period to the next, and from one country to another. The constant shifting of emphasis as regards the trinity of tank characteristics—mobility, firepower, protection—and the equally changing and debatable concepts of organization and employment, which at their extremes would tie the tank to infantry or isolate it from other arms, all come out in this story.

This is not a topical book destined for release-period limelight and prompt oblivion. It is a sound reference work, with the extended utility of a dictionary. There are 32 pages of detailed pictures that include major mechanized vehicles of armor-producing countries. A table lists statistics on tank guns, and an appendix digs deep into history to trace the tank's ancestry.

Your interest in armor will be stimulated by this excellent book.

1961 Reunion Calendar

As in former years ARMY is publishing the 1961 calendar of reunions and conventions of divisions and higher commands. *But unlike in former years, the reunions and conventions announced this month will not be repeated.* Additions will be published as received but one time only. We endeavor to keep this list accurate but cannot be held responsible for omissions or errors. Nor can we provide more information than is given here.

SEPTEMBER

VII Corps. 17-21 Sep. Hotel Marion, Little Rock, Ark. Write S. C. Hutchinson, 706 Lafayette Ave., Colonial Heights, Va.

10th Armd. Div. 2-4 Sep. Louisville, Ky. Write Paul Kosmas, 26301 Hoffmeyer St., Roseville, Mich.

25th Inf. Div. 29 Sep.-2 Oct. Waikikian Hotel, Honolulu, Hawaii. Write Major Paul M. Ireland, Jr., PO Box 101, Arlington 1, Va.

27th Inf. Div. 29-30 Sep. Sheraton Inn, Binghamton, N. Y. Write Lawrence Reagan, PO Box 1403, Albany 1, N. Y.

29th Inf. Div. 1-4 Sep. Statler Hilton Hotel, Washington, D. C. Write K. E. Marmer, 634 Mississippi Ave., Silver Spring, Md.

32d Inf. Div. 2-4 Sep. Pick Fort Shelby Hotel, Detroit, Mich. Write Joseph A. Hrdlick, 1519 N. 50th Place, Milwaukee 8, Wis.

34th Inf. Div. 8-10 Sep. Paxton Hotel, Omaha, Neb. Write Col. Junior F. Miller, Red Horse Armory, Des Moines, Iowa

35th Inf. Div. 22-24 Sep. Baker Hotel, Hutchinson, Kans. Write Brig. Gen. Mahlon S. Weed, PO Box 1001, Kansas City, Kans.

36th Inf. Div. 1-3 Sep. Stephen F. Austin Hotel, Austin, Tex. Write Harold D. Loftis, PO Box 5068, West Austin Station, Austin 31, Tex.

37th Inf. Div. 1-4 Sep. Biltmore Hotel, Dayton, Ohio. Write Jack R. McGuire, Room 1101, 21 W. Broad St., Columbus 15, Ohio

43d Inf. Div. 8-10 Sep. Hotel Viking, Newport, R. I. Write Col. Joseph E. Zimmer, State Armory, Hartford 15, Conn.

87th Inf. Div. 23 or 30 Sep. Hilton Hotel, Pittsburgh, Penna. Write Isidore Baerman, 29 Broadway, New York, N. Y.

91st Inf. Div. 30 Sep. Chamber of Commerce, Seattle, Wash. Write Archie Walker, 301 Union St., Seattle, Wash.

100th Inf. Div. 8-10 Sep. Queensbury Hotel, Glen Falls, N. Y. Write Thomas C. Burdett, 114 S. Main St., Taylor, Penna.

104th Inf. Div. 3-5 Sep. Statler Hilton Hotel, Dallas, Tex. Write Howard S. Bedney, 695 Hewlett St., Franklin Square, N. Y.

Merrill's Marauders. 1-3 Sep. Ocean Forest Hotel, Myrtle Beach, S. C. Write David Hurwitt, 22 Basket Lane, Hicksville, N. Y.

Persian Gulf Command. 1-3 Sep. Officers Club. Fitzsimons Army Hospital, Denver, Colo. Write Edward R. Driskell, 1761 E. 84th Ave., Denver 29, Colo.

NOVEMBER

77th Inf. Div. 11 Nov. Hotel Edison, New York City. Write Charles E. Rist, 28 E. 39th St., New York 16, N. Y.

82d Div. (WWI). 12 Nov. Dempsey Motor Hotel, Macon, Ga. Write James F. Brown, Jr., 1005 Bankers Ins. Bldg., Macon, Ga.

90th Inf. Div. 3-5 Nov. Lemans Hotel, Minneapolis, Minn. Write Marvin W. Watts, Rocket Oil Co., Ritz Bldg., Tulsa, Okla.

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AIMS AND OBJECTIVES

THE ASSOCIATION OF THE U. S. ARMY shall be an organization wherein all who are in accord with its objectives may join in the exchange of ideas and information on military matters, and in fostering, supporting, and advocating the legitimate and proper role of the Army of the United States and of all its branches and components in providing for and assuring the Nation's military security.

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LGen. Edward H. Brooks
Concord, N. H.

Harry A. Bullis
Minneapolis, Minn.

James H. Carmichael
Hagerstown, Md.

J. F. Clark
New York, N. Y.

Paul L. Davies
San Jose, Calif.

Malcolm P. Ferguson
Detroit, Michigan

Leonard K. Firestone
Los Angeles, Calif.

John D. Montgomery
Junction City, Kans.

Col. William S. Paley
New York, N. Y.

Howard C. Petersen
Philadelphia, Pa.

Charles M. Spofford
New York, N. Y.

Gen. Maxwell D. Taylor
New York, N. Y.

LCol. Jack M. Warner, Jr.
Los Angeles, Calif.

TERM EXPIRES JUNE 1963

Robert L. Biggers
Bloomfield Hills, Mich.

Harry W. Colmery
Topeka, Kans.

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Washington, D. C.

Rep. Gerald R. Ford, Jr.
Washington D. C.

LGen. Leslie R. Groves
Stamford, Conn.

BGen. H. F. Harding
Columbus, Ohio

Judge George W. Latimer
Washington, D. C.

MGen. H. Cabot Lodge, Jr.
New York, N. Y.

Dr. W. H. Martin
Washington, D. C.

BGen. Frank McCarthy
Beverly Hills, Calif.

LGen. Richard K. Mellon
Pittsburgh, Pa.

MGen. George Olmsted
Washington, D. C.

Frank Pace, Jr.
New York N. Y.

Col. Willard F. Rockwell, Sr.
Pittsburgh, Pa.

MGen. Patrick J. Ryan
Washington, D. C.

Sherrod E. Skinner
Detroit, Mich.

Sen. John Sparkman
Washington, D. C.

Charles S. Stevenson
Kansas City, Mo.

MGen. Leif J. Sverdrup
St. Louis, Mo.

Ben H. Wooten
Dallas, Tex.

SONGS OF THE BLUE AND GRAY

SONGS OF THE CIVIL WAR. Compiled and edited by Irwin Silber; arranged by Jerry Silverman. Columbia University Press. 385 Pages; Illustrated; Index; $7.50.

Reviewed by

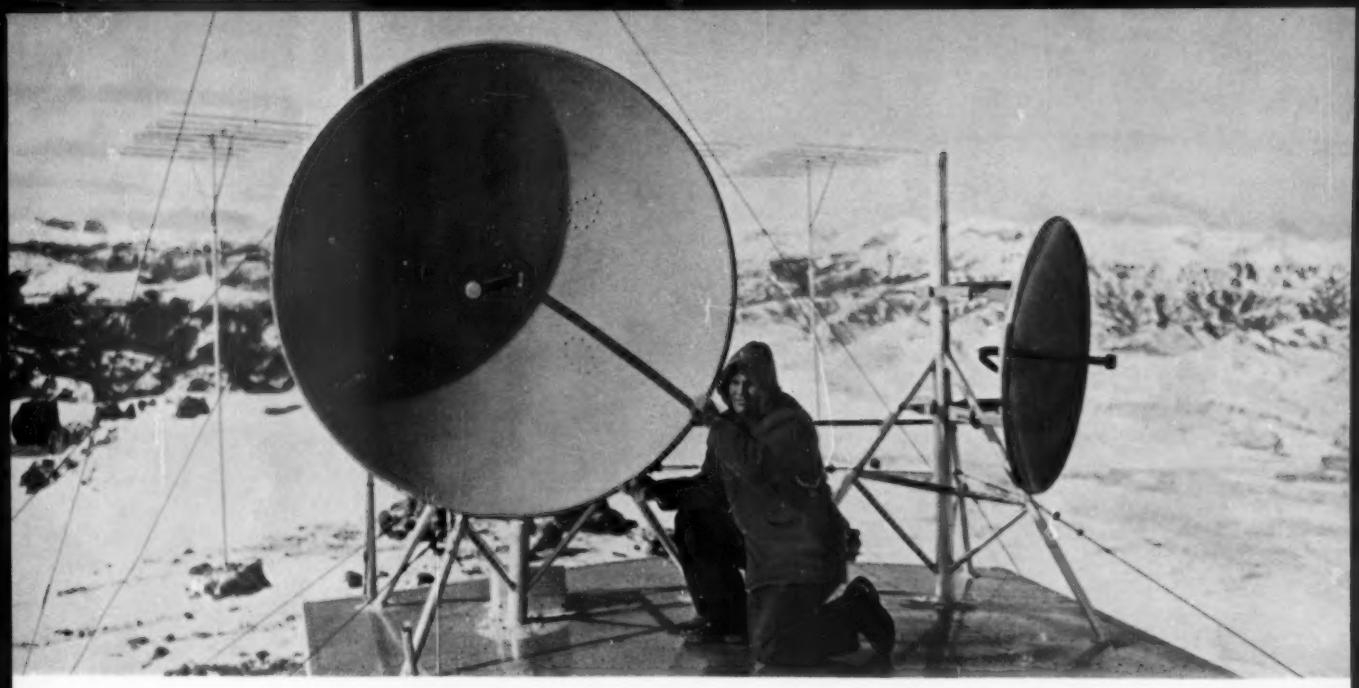
N. J. ANTHONY, who is a member of the D. C. Chapter of the Civil War Round Table.

Civil War song-pluggers worked just as hard as their Tin Pan Alley descendants, whacking out tunes to commemorate any hero or event: *Marching Through Georgia, The Alabama, The Beauregard Quick Step,* and so on. That was what the home folks and soldiers wanted, for tragic as the conflict was, its romance stretched from hearth to battlefield. Yankees favored tearful songs about home, death and Mother, while many Rebel tunes concerned liberty, chow and sweethearts.

Songs are grouped by type: marching and inspirational, sentimental (how corny after these many years!), those the soldiers sang, songs of battles and campaigns, Negro and Abolitionist, comic tunes, postwar songs, even a group about Lincoln.

Woven into the text are many highlights. For example, *Lorena,* like *Lili Marlene* of World War II, was sung by both sides. The melody of an old Methodist hymn was used for *John Brown's Body,* which concerns not John Brown of Harpers Ferry but a Massachusetts sergeant. Julia Ward Howe's *Battle Hymn of the Republic* borrows this melody. The most enduring seems to have been *The Battle Cry of Freedom* which, I am told, was sung at all GAR affairs. Juke-box addicts will groan when they learn that *The Yellow Rose of Texas,* far from recent origin, "seems to be one of a group . . . concerning various 'state sweethearts,'" and that like *Dixie,* this Rebel marching song was a product of the Yankee minstrel stage.

These 125 of the most popular tunes are the most complete collection ever published. The text includes history, enemy versions, and parodies. The music is arranged for piano and guitar, and sheet-music size allows the book to rest on a stand. A bargain, considering the cost of record "albums" and sheet music.



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